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HANDBOOK OF PROCEDURES: RELIABILITY AND MAINTAINABILITY MONITOR--ETC(U)
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HANDBOOK OF PROCEDURES:
RELIABILITY AND MAINTAINABILITY
MONITORING PROGRAM FOR THE
MARINE AIR COMMAND AND CONTROL
SYSTEM (MACCS)

December 1974

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Prepared for
COMMANDANT OF THE MARINE CORPS
DEPARTMENT OF THE NAVY
under Contract M00027-74-C-0099

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FOREWORD

The purpose of this program is to provide an independent and objective monitoring of the failure and maintenance problems of the Marine Air Command and Control System (MACCS). The specific portions of the MACCS being monitored are the Tactical Air Command Central, AN/TYQ-1; the Tactical Air Operations Central, AN/TYQ-2; the Tactical Data Communications Central, AN/TYQ-3; the Radar Set, AN/TYQ-32; and other ~~mutually agreed upon~~ equipments associated with these systems. This is being accomplished by monitoring actual performance data relative to design objectives, identifying problem areas, and recommending specific corrective action.

The program is directed toward the performance of four general tasks:

- Continued collection, processing, compiling, and entry on magnetic tape of failure and maintenance data on MACCS equipments in the field
- Comparison of spare-parts provisioning with usage data
- Identification of maintenance problem areas and documentation of recommendations for improvement, when appropriate
- Provision of other quick-reaction services as directed by the Contract Officer in connection with these tasks, as so directed and funded

This handbook provides the program documentation used to perform the Reliability and Monitoring Program for the MACCS. It consists of (1) a detailed description of the characteristics and features of the MACCS R&M program; (2) a complete list of computer instructions and data used in solving the problem for which the program is designed; (3) the design criteria for the subject program in functional terminology and flow charts showing control flow in the program; and (4) the program operating procedures necessary to perform all aspects of program operation.

This handbook is divided into four parts:

1. MACCS Failure and Maintenance Data
2. Equipment Breakdown Codes
3. MACCS Operate-Hours Data
4. MACCS Part Quantity Data

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DATA COLLECTION AND PROCESSING

MACCS Failure and Maintenance Data

In order to obtain malfunction information that will permit reliability and maintainability determinations, assist in product improvement, and provide parts-usage data, a Failure and Maintenance Report (FMR) must be prepared by the equipment user every time any work is accomplished within the system regardless of how small it may seem at the time. FMRs are completed in accordance with SI 2005-15/1 (). At least three liaison visits a year are made to the field to ensure proper completion of the FMRs.

Upon receipt by ARINC Research, the FMR is reviewed and the reported failure is classified with regard to its effect on the system. Failures are classified as CS, severe degradation of a major function; CL, moderate degradation of a tactical operational function; CI, insignificant degradation of a tactical operational function; and CN, no degradation of a tactical operational function (i.e., test-equipment malfunctions or inoperable repair parts).

The reviewed and classified FMR is transcribed into an FMR data-encoding sheet. The FMR data-encoding-sheet information is then keypunched on computer cards (card types 1, system data; 3, repairable-parts data; and 4, consumable-parts data). These cards are used to create (and add data to) the MACCS Failure and Maintenance Data Tape. The creation, update, and listing of, as well as corrections to the MACCS Failure and Maintenance Master Data Tapes are described in Part 1. The Equipment Breakdown codes, used in completing the FMR data-encoding sheets, are listed in Part 2.

MACCS Operate-Hours Data

Equally as important as the FMRs are the Weekly Equipment Timer Reports. These reports are filled out each week on the indicated equipments and submitted to ARINC Research for use in creating and updating the Operate Hours Tapes. The information on the Weekly Timer Reports is encoded onto operate-hour encoding sheets and keypunched on computer cards. The creation and maintenance of the MACCS Operate-Hours Data Tapes are described in Part 3.

MACCS Part Quantity Data

Part-quantity cards are created from data obtained from Marine Corps Stock Lists and are used in creating and updating the Part Quantity Data Tape. This tape lists all parts required to maintain and support the equipment. The creation and maintenance of the MACCS Part Quantity Data Tapes are described in Part 4.

REPORTS

The ultimate purpose of the Master Data Tapes is to provide data for the preparation of reports covering specified time periods so that equipment performance, parts usage, and maintenance actions can be examined and evaluated. The analysis of past performance, maintenance actions, and parts usage will give indications of possible future problems that could not otherwise be discerned and corrected in time to prevent long periods of degraded system operation.

**1. MACCS FAILURE AND
MAINTENANCE DATA**

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FAILURE AND MAINTENANCE DATA

SECTION 1. INTRODUCTION

The purpose of this procedure is to put new FMR data on tape, check for errors, make corrections, merge new data with master data tape, and list.

This procedure is accomplished on an IBM 370/135 Disk Operating System (DOS) computer utilizing 5 utility routines, 4 RPG programs and 1 COBOL program. The output of the procedure is a magnetic tape that contains all of the reported failures and maintenance on the systems (AN/TYQ-1, AN/TYQ-2, AN/TYQ-3, and AN/TPS-32) within the Marine Air Command and Control System.

Failure and Maintenance Reports (FMRs) (enclosure 1) on the equipment of the MACCS units are received daily. The data on these reports are transcribed onto the FMR Encoding Form (enclosure 2). The data on the Encoding Forms are then keypunched onto IBM cards. Any errors or omissions discovered on the magnetic tape are recorded on the MACCS Changes Encoding Form (enclosure 3) and then keypunched onto IBM cards.

SECTION 2. APPLICABLE DOCUMENTS

No Government/non-Government documents are referred to in this procedure.

SECTION 3. INPUTS

- a. To put new FMR data on tape and check for errors
 - (1) IBM punched cards containing failure and maintenance data
 - (2) Part quantity tape in part number order
 - (3) Part quantity tape in federal stock number order
- b. To make corrections to the new FMR data tape
 - (1) IBM punched cards containing corrections
 - (2) New FMR data tape
- c. To merge new FMR data with old master FMR data tape and list
 - (1) New FMR data tape
 - (2) Old FMR master data tape

SECTION 4. BASIC OPERATIONS

- a. To put new FMR data on tape and check for errors

The IBM cards containing failure and maintenance data are converted to data on magnetic tape using the CDTAPE routine. The new data are then sorted by Equipment Identity, FMR number, card type, suffix, federal stock number and component reference symbol by use of the SRTCTS routine. This tape is then checked for errors and valid part numbers and federal stock numbers using three RPG programs, ERRCHK, PRTCHK and FSNCHK. Enclosures 4,5,6 are the logic flow, operating procedure and program listings of this procedure.

- b. To make corrections to the new FMR data tape

IBM cards containing corrected data are used with the EDTAPE, a COBOL program, to make correct any errors discovered during the error check programs. Enclosures 7, 8 and 9 are the logic flow, operating procedure and program listing of this procedure.

- c. To merge new FMR data with the old master data tape and list

The corrected new FMR data tape and the old master data tape are merged and sorted utilizing the MRGSRT routine.

In the event that a computer listing of either tape is desired for inspection or analysis, LSTAPE, an RPG program, is run. Enclosures 10, 11, and 12 are the logic flow, operating procedure, and program listings of this procedure.

SECTION 5. OUTPUTS

- a. To put new FMR data on tape and check for errors

The output consists of the following:

- (1) A magnetic tape with new FMR data
- (2) A printout listing errors discovered during the ERRCHK program
- (3) A printout listing invalid part numbers discovered during the PRTCHK program.
- (4) A printout listing invalid federal stock numbers discovered during the FSNCHK program

- b. To make corrections to the new FMR data tape

The output consists of the following:

- (1) A magnetic tape containing the new FMR data with all errors corrected
- (2) A printout listing invalid cards for which corrections were not made.

c. To merge new FMR data with the old master data tape and list

The output consists of the following:

- (1) A new master data tape
- (2) A printout listing all of the records on the master data tape (This is an optional output)

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ARINC Research Corp. Form OP-83A 4-7-65

FMR DATA ENCODING FORM
WITH INSTRUCTION SHEETS

ARINC RESEARCH CORPORATION
MARINE AIR COMMAND AND CONTROL SYSTEM
FAILURE AND MAINTENANCE REPORTS

SHEET NO. _____ OF _____
DATE _____

[illegible]

INSTRUCTIONS FOR CODING FAILURE AND
MAINTENANCE DATA ON CARD TYPE 1
(GROUP LEVEL)

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-3	W.O. No.	Work Order Number - preprinted
4-8	Date	Enter month-day-year when equipment malfunction was FIRST DETECTED (FROM THE FMR).
9		Not Used
10-12	FMR No	A three digit number starting with 001 and progressing sequentially will be assigned by ARINC Research to each equipment Failure and Maintenance Report (FMR) received from each reporting activity (obtained from FMR).
14-18	Equip. Ident.	A five digit number which identifies each equipment under surveillance. Columns 14-15 codes assigned for system (squadron or activity) are listed in Table 1. Columns 16-18 codes assigned for each group are listed in Table 2.
19	R/M	Reason for Maintenance. Enter one of the following letters from FMR to indicate when the failure was detected. S - Malfunction detected during standby (for radar only). N - Malfunction detected during normal operations. Normal operation is defined as a state of operation other than during equipment check or preventative maintenance. C - Malfunction detected during equipment check. Equipment check is defined as a procedural equipment check, diagnostic test, or use of self-test features checks. A - Malfunction caused by accidental damage P - Malfunction detected during preventive maintenance (scheduled or unscheduled) F - Termination of data collection M - Modification

20-21	C/E	Cause and Effect. Enter codes from Table 3 to indicate the cause and effect which malfunction had on the equipment.
22-25	Timer Reading	Enter the timer reading of the group (from the FMR).
26-29	Serial No.	Enter the serial number of the group (from the FMR).
30-63		Not Used
64-48	Total Event Time	Enter the difference in time in tenths of hours of the two categories "First Detected" and "End of Repair" from the top half of the FMR.
69	MFL	Men-Fault Locate. Enter number of men required to locate the fault. Obtained from top half of FMR from Troubleshooting entry.
70	MREP	Men Repair. Enter number of men performing repair. Obtained from top half of FMR from Repair Entry.
71-79	Group Active Repair	Enter times (in tenths of hours) from top half of FMR as follows: 71-73 FL - Time expended in Fault Location 74-76 PP - Time expended in procuring the required part(s) if available in the squadron supply 77-79 REP - Time expended in repairing and checkou of the system after the fault has been isolated
80	CT	Card Type - preprinted

INSTRUCTIONS FOR CODING FAILURE AND
MAINTENANCE ON CARD TYPE 3

(REPAIRABLE PARTS LEVEL)

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-12		Same as columns 1-12 Card Type 1
13	Suffix	Enter the letter "A" and program alphabetically if more than 1 FMR is received on the same event.
14-21		Same as columns 14-21 card type 1
22	P/S	Enter the type of malfunction as follows: <u>P - Primary.</u> A malfunction or failure directly attributable to a fault of the equipment in its inherent capability to perform as required <u>S - Secondary.</u> A malfunction or failure caused by another malfunction or failure <u>O - Operator Error.</u> A malfunction or failure caused by operators or maintenance persons <u>U - Unknown</u>
23	DISP	Enter disposition to indicate specific repair action. A. Unknown, not applicable B. Removed and repaired (replaced parts) C. Removed and repaired without replacement parts D. Removed, but not repaired at O, F & H level E. Received bad from Supply (removal) F. Removed, no defect found G. Repaired without removal H. No defect found, not removed J. Did not fail, used for installation in another location (SWAP) K. Preventative maintenance or modification L. Cleaned contacts
24	MFL GP	Same as column 69 Card Type 1

25-32	Hardware Identity	Enter codes as follows: 25-26 UN - Two digit code which identifies the unit within the equipment. See Equipment Breakdown for codes. 27-28 AS - Two digit code which identifies the assembly within the unit. See Equipment breakdown for codes. 29-30 SA - Two-digit code which identifies the subassembly within the assembly. See Equipment Breakdown for codes. 31-32 MOD - Two digit code which identifies the modules within the subassembly. See Equipment Breakdown for codes.
33-45	Part Number	Enter the Part Number of the module, subassembly, assembly or unit, whichever is listed as the lowest.
46-49	REF DESIG/J-CONN No.	Enter J - connector number of cards replaced, repaired, or adjusted (bay, shelf, and slot numbers) in these columns.
50-53	Serial No	Enter serial number of card, subassembly, assembly or unit as appropriate.
54	MREP GP	Same as Column 70 Card Type 1
55-63	Group Active Repair	Enter the top half of the FMR times in tenths of hour as follows: 55-57 FL - Time expended in fault location 58-60 PP - Time expended in procuring the required part(s) if available in the squadron supply 61-63 - REP - Time expended in repairing and checkout once the fault has been located
64-68	Total Event Time	Enter the difference in time from the two categories of First Detected (upper portion of FMR) and End of Repair Time (bottom portion of FMR).
69	MFL	Enter number of men performing fault location (troubleshooting) on bottom portion of FMR.
70	MREP	Enter number of men performing repair (bottom portion of FMR).
71-79	Fault Active Repair	Enter times in tenths of hours as follows:

71-73 FL - Time expended in isolating the
malfunction (bottom portion of FMR)

74-76 PP - Time expended in procuring the required
part(s) if available in the squadron
supply (bottom portion of FMR)

77-79 REP - Time expended in repairing the mal-
function part(s) (bottom portion of FMR)

80

CT

Card Type - preprinted

INSTRUCTIONS FOR CODING FAILURE AND
MAINTENANCE DATA ON CARD TYPE 4
(CONSUMABLE PARTS LEVEL)

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-22		Same as columns 1-22 card type 3
23	DISP	Enter codes as follows: 0 - Unknown 1 - replaced 2 - repaired 3 - adjusted 4 - cleaned 5 - lubricated 6 - returned to vendor 7 - not applicable 8 - no trouble found 9 - other
24		Not used
25-53		Same as Card Type 3
54-59	PART	Enter codes as follows: 54-55 SYM (Symbol) When code is one letter, dash column 55. Codes are as follows: A - Integrated Circuit AR - Magnetic Amplifier B - Motors, Synchros BL - Ballast C - Capacitors CB - Circuit Breakers CD - Throwaway Cards CR - Semiconductor Diodes DS - Lamps 1-12 E - Terminals, contacts

F - Fuses
FA - Fans
FL - Filters
G - Mechanical Parts
H - Hardware, Misc.
J - Jacks
K - Relays
L - Inductors, Cables
M - Meters
N - Nixies
OT - Other
P - Plugs
PI - Pencil Tips
Q - Transistors
R - Resistors
RT - Mg. Drum Heads
S - Switches
SR - Silicon Controlled rectifier
T - Transformers
TF - Transfluxors
TR - TR Tubes
TY - Timers
V - Vacuum Tubes
W - Wire, Cables
X - Sockets (other than tube sockets)
SV - Tube Sockets
Y - Mylar
Z - Impedence Devices

56-59 POS (position)

Enter circuit number of the reported part.

If less than four digits, record zeros to left of the circuit number.

60-72	Federal Stock Number	Enter the federal stock number.
73-75	MIL DEF	Enter three digit codes from Military Defect List (Table 4).
76-78	AWP Days	Awaiting Parts; not used
79	IT	Isolation Technique; not used
80	CT	Card Type - Preprinted

TYQ-1			TYQ-2			TYQ-3			TPS-32		
System	Codes Col 14-15	Unit	System	Codes Col 14-15	Unit	System	Codes Col 14-15	Unit	System	Codes Col 14-15	Unit
1	51	MCTSSA	1	01	MCCES	1	31	MACS-3	1	61	MCTSSA
2	52	H&HS-18	2	02	MCCES	2	32	MCCES	2	62	Contractor
3	53	MWCS-28	3	03	Rebuild	3	33	MACS-4	3	63	MCCES (Dehut)
4	54	MWCS-38	4	04	MACS-4(8)	4	34	MACS-4(8)	4	64	MACS-5
5	55	MCCES(MF)	5	05	MACS-7	5	35	MACS-7	5	65	MACS-2
6	56	MCCES(MT)	6	06	MCSC	6	36	MACS-5(9)	6	66	MACS-6
7	57	MCTSSA(A)	7	07	MACS-5	7	37	MACS-1	7	67	MCCES
			8	08	MACS-6	8	38	MACS-6	8	68	MACS-6
			9	09	MCTSSA	9	39	MCTSSA	9	69	MACS-7
			10	10	MCSC	10	40	MACS-5	10	70	MACS-4
			11	11	MACS-2	11	41	MACS-2	B-1	71	
			12	12	MACS-24	12	42	MACS-24	B-2	72	MACS-24
			MF-1	13	MCSC	13	43	MCSC	B-3	73	
			MF-2	14	MCTSSA	14	44	MWCS-28			
						15	45	MWCS-38			
						16	46	H&HS-18			

TABLE 1

TYQ-1		TYQ-2		TYQ-3		TPS-32	
Group	Codes Col 16-18	Group	Codes Col 16-18	Group	Codes Col 16-18	Group	Codes Col 10-18
ALL	351	5	011	17 No 1	301	PSOP64	611
		6	021	17 No 2	302	CP1020	621
		18 No 1	031	17 No 3	303	CP1021	631
		18 No 2	032	19 No 1	311	OJ182	641
		7	041	19 No 2	312	R1678	651
		12	051	20 No 1	321	T1167	661
						RT 997	671
		9 OP 1	061	20 No 2	322	T1166	681
		9 OP 2	062				
		9 OP 3	063	20 No 3	323	OE91	691
		9 OP 4	064	20 No 4	324	J2931	701
		9 OP 5	065	24 No 1	341	Radar Set	711
		23	071	24 No 2	342		
		25	081	24 No 3	343		
		26	091				
		27	101				

TABLE 2

TABLE 3

CAUSE OF FAILURE (COL 20)
C = Component D = Design Deficiency H = Human or Operator Errors M = Miscellaneous P = Preventive Maintenance Q = Peripheral or GFE Equipments U = Indeterminate W = Workmanship
EFFECT OF FAILURE (COL 21)
S = Severe degradation of a major tactical operational function L = Moderate degradation of a tactical operational function I = Insignificant effect on a tactical operational function N = No direct effect on a tactical operational function

TABLE 4

MALFUNCTION DESCRIPTION CODES -
ALPHABETICAL LISTING

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
956	Abnormal Function of Computer Mechanical Equipment	028	Conductance incorrect	697	Faulty Tape - Program or Check-out	105	Loose or Damaged Bolts, Nuts, Screws, Rivets, Fasteners, Clamps or Other Common Hardware	806	No Defect - Remained as Part of a Matched System	660	Stripped Sudden Stop
931	Accidental or Inadvertent Operation, Release or Activation	306	Contamination	037	Fluctuates, Unstable or Erratic Foreign Object	004	Low GM or Emission	957	No Display	503	Sweep Malfunction
127	Adjustment or Alignment Improper	190	Corroded	748	Frequency Erratic or Incorrect	962	Low Power Electronic	094	No Gain or Emission	695	Sync Absent or Incorrect
007	Arcing, Arced	029	Cracked	177	Fuel Flow Incorrect	386	Maintenance Action Due to a Lost In Flight Occurrence	008	Noisy	334	Temperature Incorrect
103	Attack Display Malfunction	955	Crazed	277	Fuel Nozzle Coking	537	Low Power or Thrust	396	No Output	664	Tension Incorrect
694	Audio and Video Faulty	846	Data Link High Error Rate	472	Fuse Blown or Defective Circuit Protector	372	Manifold Pressure Beyond Limits	398	Oil Breathing Excessive	782	Tire Tread Area Defective - Use
693	Audio Faulty	117	Delaminated	001	Gassy	604	Manifold Pressure Beyond Limits	603	Oil Consumption Excessive		Out, Delaminated, Punctured, Worn, Etc., - If applicable
710	Bearing Failing or Faulty	230	Detonation	005	High Voltage Standing Wave Ratio	372	Metal on Magnetic Plug	450	Oil In Induction System	783	Tire Sidewall Damaged or Defective
780	Bent, Buckled, Collapsed, Dented, Twisted	932	Does Not Engage, Lock or Unlocks Correctly	317	Hot Start	009	Microphonic	003	Open Filament or Tube Circuit	784	Tire Bead Area Damaged or Defective
135	Binding, Stuck or Jammed	606	Drone or Drone Component Not Recovered	816	Impedance Incorrect	253	Misfires	457	Oscillating	785	Tire Inside Surface Damaged or Defective
838	B Plus Incorrect	142	Engine Removed, Excessive Maintenance	246	Improper or Faulty Maintenance	092	Mismatched - Wheel Halves, Electronic Parts, Etc.	458	Out of Balance		
070	Broken	330	Excessive Hum	086	Improper Handling	106	Missing Bolts, Nuts, Screws, Rivets, Fasteners, Clamps, or Other Common Hardware	520	Overspeed	947	Torn
719	Broken or Frayed Bonding or Ground Wire	424	External Power Source	437	Improperly Positioned or Selected	425	Nicked	540	Punctured	167	Torque Incorrect
108	Broken, Faulty or Missing Safety Wire or Key	602	Failed, Damaged or Replaced Due to Malfunction of Associated Equipment or Item	958	Incorrect Display	799	No Defect	567	Resistance Incorrect	877	Transportation Damage
720	Brush Failure/Brush Excessively Worn	242	Failed to Operate or Function - Specific Reason Unknown	054	Incorrect Module	800	No Defect - Component Removed and/or Reinstalled to Facilitate Other Maintenance	315	RPM Fluctuation or Incorrect	599	Travel or Extension Incorrect
900	Burned or Overheated	290	Fails Diagnostic/Automatic Test	169	Incorrect Voltage Insulation Breakdown	801	No Defect - Component Removed for Technical Diagnostic Compliance	583	Scope Presentation Incorrect or Faulty	561	Unable to Adjust to Limits
080	Burned Out or Defective Light Bulb	959	Fails to Transfer to Redundant Equipment	350	Intermittent Internal Failure	804	No Defect - Re-moved for Scheduled Maintenance	935	Scored or Scratched	690	Vibration Excessive
111	Burst or Ruptured	051	Fails to Tune or Drifts	374	Internal Failure	803	No Defect - Re-moved for Time Change	585	Shorted	692	Video Faulty
130	Change of Value	698	Faulty Card - program or Checkout	481	Keyway or Spline Damaged or Worn			615	Slipped or Commutator Failure	878	Weather Damage
150	Chattering			410	Lack of, or Improper Lubrication			770	Spray Pattern Defective	622	Wet
910	Chipped			158	Launch Damage			314		020	Worn, Chafed or Frayed
181	Compression Low			381	Leaking - Internal or External			279		447	Wrong Logic - Program or Computer
380	Compressor or Turbine Wheel Damaged - Reason Unknown			382	Liquid Lock						
				383	Lock on Malfunction						
				730	Loose						

MALFUNCTION DESCRIPTION CODES -
HIGH POWER TUBES

CODE	DESCRIPTION	CODE	DESCRIPTION
963	Broken Filament/ Cathode Terminal	987	Input Pulse Dis- tortion
969	Cannot Resonate	988	Loss of Vacuum
970	Input Cavity	989	Low Coolant Flow Rate
971	Coolant Leak	990	No Focus Cur- rent
972	Cracked Cathode Bushings	991	Out of Band Fre- quency
973	Damaged Input Probe	992	Output Pulse Dis- tortion
974	Damaged Output Probe	993	Overheated Cathode Stem
968	Does Not Track Tuning Cu:ve	984	Poor Spectrum
975	Diode Filament to Cathode Short	938	Power Output Dip
981	Frequency In- stability	993	RF Drive Im- proper
982	Frozen Tuning Mechanism	994	RF Feed-Thru Attenuated/Dis- torted
983	Grid to Cathode Short	995	RF Feed-Thru Completely Inter- rupted
984	Grid to Plate Short	996	RF Terminal Overheated
961	High Anode Cur- rent	997	RF Window Burned
985	High Body Cur- rent/Beam Inter- ruption	966	RF Window Suck-in, Broken or Cracked
986	High Modulator Inverse		

MAFUNCTION DESCRIPTION CODES - NUMERICAL LISTING

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
001	Gassy	108	Broken Faulty or Missing Safety Wire or Key	330	Excessive Hum	540	Punctured
003	Open Filament or Tube Circuit	111	Burst or Ruptured	334	Temperature In-correct	561	Unable to Adjust to Limits
004	Low GM or Emission	116	Out	350	Insulation Break-down	567	Resistance In-correct
007	Arcing, Arced	117	Deteriorated	372	Metal On Magnetic Plug	583	Scope Presenta-tion In-correct or Faulty
008	Noisy	127	Adjustment or Alignment Im-proper	374	Internal Failure	585	Sheared
009	Microphonic	130	Change of Value	380	Compressor or Turbine Wheel	599	Travel or Exten-sion In-correct
010	Poor or In-correct Focus	135	Binding, Stuck or Jammed	381	Unknown	601	Detonation
020	Worn, Chafed or Frayed	142	Engine Removed, Excessive Main-tenance	382	Leaking - Internal or External	602	Failed, Damaged or Replaced Due to Malfunction of Associated Equip-ment or Item
028	Conductance In-correct	150	Chattering	383	Liquid Lock	603	Oil In Induction System
029	Current In-correct	158	Launch Damage	386	Lock On Malfunc-tion	604	Manifold Pressure Beyond Limits
037	Fluctuates, Un-stable or Erratic	160	Contact/Connection Defective	396	Oil Breathing	605	Crazed
051	Fails to Tune or Drifts	167	Torque In-correct	398	Oil Consumption	606	Drone or Drone Component Not Recovered
064	In-correct Modula-tion	169	In-correct Voltage	410	Excessive Lack of, Or Im-proper Lubrica-tion	615	Shorted
065	High Voltage Stand-ing Wave Ratio	170	Corroded	424	External Power Source	622	Wet
069	Flame-out	177	Fuel Flow In-correct	425	Nicked	649	Sweep Malfunction
070	Broken	181	Compression Low	437	Improperly Posi-tioned or Selected	660	Stripped
080	Burned Out or De-fective Light Bulb	190	Cracked	447	Wrong Logic - Pro-gram or Computer	664	Tension In-correct
086	Improper Handling	230	Dirty	450	Open	690	Vibration Exces-sive
088	In-correct Gain	242	Failed to Operate or Function - Unknown	457	Oscillating	692	Video Faulty
092	Mismatched - Wheel Halves, Electronic Parts, Etc.	246	In-proper or Faulty Maintenance	458	Out of Balance	693	Audio Faulty
094	No Gain or Emission	253	Misfires	464	Over-speed	694	Audio and Video Faulty
103	Attack Display	255	No Output	475	Fuse Blown or Defective Circuit	695	Sync Absent or In-correct
105	Malfunction	277	Fuel Nozzle	481	Protect or Spline	697	Faulty Tape - Pro-gram or Check-out
	Loose or Damaged Bolts, Nuts, Screws, Rivets, Fasteners, Clamps or Other Common Hardware	279	Spray Pattern De-fective	503	Damaged or Worn	710	gram or Check-out Bearing Failing
		290	Fails Diagnostic/Automatic Test	525	Sudden Stop	719	or Faulty Broken or Frayed
106	Missing Bolts, Nuts, Screws, Rivets, Fasteners, Clamps or Other Common Hardware	301	Foreign Object	537	Pressure In-correct		Bonding or Ground Wire
		306	Damage		Thrust		
		314	Contamination				
		315	Slow Acceleration RPM Fluctuation or In-correct				
		317	Hot Start				

CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
720	Brush Failure/ Worn Excessively	877	Transportation Damage	973	Damaged Output Probe	988	Loss of Vacuum
730	Loose	878	Weather Damage	974	Does Not Track Tuning Curve	989	Low Coolant Flow Rate
748	Frequency Erratic or Incorrect	900	Burned or Over- heated	975	Filament to Cathode Short	990	No Focus Cur- rent
770	Slip Ring or Com- mutator Failure	901	Intermittent Chipped	981	Frequency Instability	991	Out of Band Fre- quency
780	Bent, Buckled, Collapsed, Dented, Distorted or Twisted	931	Accidental or Inadvertent Opera- tion, Release or Activation	982	Frozen Tuning Mechanism	992	Output Pulse Dis- tortion
782	Tire Tread Area Defective - Use Cut, Delaminated, Punctured, Worn, Etc., if applicable	932	Lock or Unlock Correctly	983	Grid to Cathode Short	993	RF Drive Improper
783	Tire Sidewall Damaged or De- fective	935	Scored or Scratched Overheated Cathode Stem	984	Grid to Plate Short	994	RF Feed-Thru Attenuated/Dis- torted
784	Tire Bead Area Damaged or De- fective	937	Power Output Dip Torn	985	High Body Cur- rent/Beam Inter- ruption	995	RF Feed-Thru Completely Inter- rupted
785	Tire Inside Sur- face Damaged or Defective	947	Data Link High Error Rate	986	High Modulator Inverse	996	RF Terminal Overheated
799	No Defect	955	Abnormal Function of Computer Me- chanical Equipment	987	Input Pulse Dis- tortion	997	RF Window Burned
800	No Defect - Com- ponent removed and/or Reinstalled to Facilitate Other Maintenance	956	No Display Incorrect Display Fails to Transfer to Redundant Equip- ment				
801	No Defect - Com- ponent Removed for Technical Di- rective Compliance	957	High Anode Cur- rent				
803	No Defect - Re- moved for Time Change	958	Low Power Elec- tronic				
804	No Defect - Re- moved for Sched- uled Maintenance	959	Broken Filament/ Cathode Terminal				
806	No Defect - Re- moved as Part of a Matched System	961	Poor Spectrum RF Window Suck- in, Broken or Cracked				
816	Impedance Incor- rect	962	Cracked Diodes				
838	B Plus Incorrect	963	Cannot Resonate Input Cavity				
846	Delaminated	964	Coolant Leak Cracked Cathode Bushing				

MACCS CHANGES ENCODING FORM
WITH INSTRUCTION SHEET

ARINC RESEARCH CORPORATION

SHEET NO. _____ OF _____
DATE _____

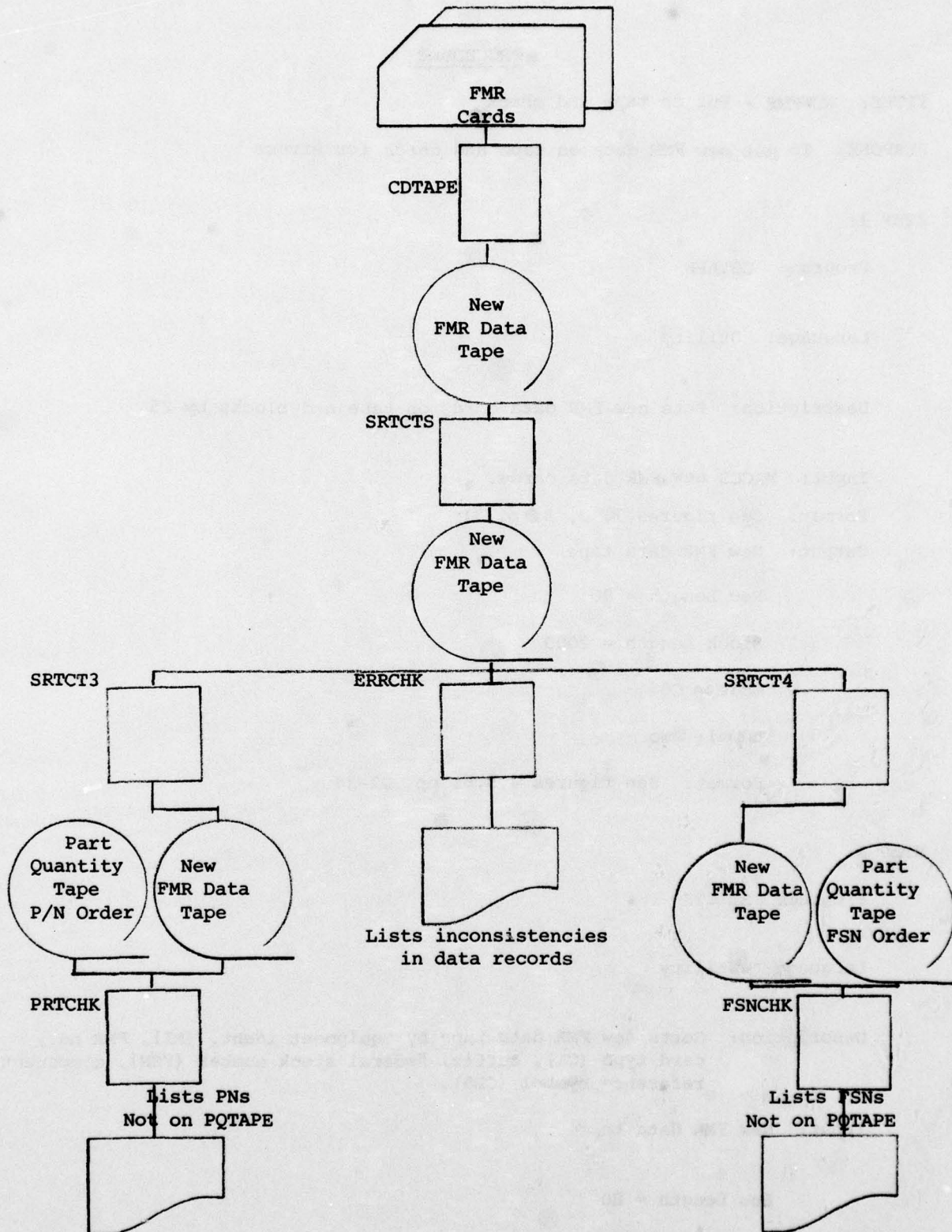
MACCS CHANGES

[illegible]

MACCS CHANGES ENCODING FORM

INSTRUCTION SHEET

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-5	Record No.	Enter record number from printout of new FMR data tape.
6-7	Begin	Enter two digit number of column where correction is to begin.
8-9	End	Enter two digit number of column where correction is to end.
10-80	MACCS Changes	Enter correct data .



LOGIC FLOW TO PUT NEW FMR DATA ON
TAPE AND CHECK DATA FOR ERRORS

PROCEDURE

TITLE: NEWFMR - Put on tape and check

PURPOSE: To put new FMR data on tape and check for errors

STEP 1:

Program: CDTAPE

Language: Utility

Description: Puts new FMR data cards on tape and blocks by 25

Input: MACCS new FMR data cards.

Format: See figures 1, 2, 3, p. 31

Output: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

STEP 2:

Program: SRTCTS

Language: Utility

Description: Sorts new FMR data tape by equipment ident. (EI), FMR no., card type (CT), suffix, federal stock number (FSN), component reference symbol (CRS).

Input: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Output: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: EI, FMR, CT, Suffix, FSN, CRS

STEP 3:

Program: ERRCHK

Language: RPG

Description: Performs internal consistency check of data elements on the tape. Checks that: CT is valid (i.e., 1,3,4); record is in proper order (i.e., 1,3,4); blank columns are blank; group active repair is same on CT1 and CT3, if only one associated CT3; columns 1-12, 14-21 on CT3 and CT4 match associated CT1; columns 25-53 of CT4 match columns 25-53 of CT3 if only one associated CT3; record is 961 (i.e., columns 1-3).

Input: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: EI, FMR, CT, Suffix, FSN, CRS

Output: Listing of records with errors

STEP 4:

Program: SRTCT3

Language: Utility

Description: Sorts new FMR data tape by part number and group

Input: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Output: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: Part Number, Group

STEP 5:

Program: PRTCHK

Language: RPG

Description: Compares part numbers on new FMR data tape with part numbers on Part Quantity Tape (P/N order).

Input: (1) New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: Part Number, Group

(2) Part Quantity Tape in PN order

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Order: Part Number

Output: Listing of part numbers that are not on the Part Quantity Tape

STEP 6:

Program: SRTCT4

Language: Utility

Description: Sorts new FMR data tape by federal stock number and group

Input: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Output: New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: Federal Stock Number, Group

STEP 7:

Program: FSNCHK

Language: RPG

Description: Compares federal stock numbers on new FMR data tape with the federal stock numbers on the Part Quantity Tape (FSN order).

Input: (1) New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 4,5,6, pp. 32-34

Order: Federal stock number, group

(2) Part Quantity Tape in FSN Order

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Order: Federal stock number

Output: Listing of federal stock numbers that are not on the Part Quantity Tape

WORK ORDER NO. 1302-01

ARINC RESEARCH CORPORATION
MARINE AIR COMMAND AND CONTROL SYSTEM
FAILURE AND MAINTENANCE REPORTS

SHEET NO. _____ OF _____
DATE _____

W.C. NO.	DATE			FMR NO.	EQUIP IDENT	P/C/M/E	GROUP		PART NUMBER	REF DESIG/J-COMM NO.	SERIAL NO.	GROUP ACTIVE REPAIR			TOTAL EVENT TIME	GROUP ACTIVE REPAIR		
	M	D	Y				TIMER READING	SERIAL NO.				FL	PP	REP		FL	PP	REP
1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
2	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
3	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
4	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
5	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
6	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
7	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
8	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
9	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
10	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8
11	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8

TAPE RECORD FORMAT

FILE NAME _____		GROUP DATA _____		RECORD LENGTH <u>80</u>		PAGE _____ OF _____		DATE _____	
FILE NUMBER _____		Card Type <u>1</u>		BLOCKING FACTOR <u>25</u>					
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	HEADER	<input type="checkbox"/>	STANDARD	<input type="checkbox"/>
GAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/>	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	<input type="checkbox"/>	NON-STANDARD	<input type="checkbox"/>
REMARKS:									

DATE		PMR		EQUIP.		R/C/E		GROUP			
Mo	Da	Yr	NO.	NO.	IDENT.	Timer Reading	Serial No.				
5			10		15	20	25	30	35	40	

TOTAL EVENT TIME		GROUP ACTIVE REPAIR	
M	M	F	REP
L	L	E	1
P	P	P	
45	50	55	60
65	70	75	80

85	90	95	100	105	110	115	120
----	----	----	-----	-----	-----	-----	-----

125	130	135	140	145	150	155	160
-----	-----	-----	-----	-----	-----	-----	-----

165	170	175	180	185	190	195	200
-----	-----	-----	-----	-----	-----	-----	-----

CPD - 40 8 - 16 - 66

Figure 4

TAPE RECORD FORMAT

FILE NAME REPAIRABLE PARTS DATA RECORD LENGTH 80 PAGE OF DATE

FILE NUMBER Card Type 3 BLOCKING FACTOR 25

PARITY ☒ EVEN ☐ ODD

GAP ☒ 3/4" ☐

PAD W/9's ☐ YES ☒ NO

TAPE MARK ☒ YES ☐ NO

STANDARD ☐ NON-STANDARD ☒ NOTE

HEADER ☐ TRAILER ☐

REMARKS

DATE		FMR NO.		EQUIP IDENT		R/		C/E		P/S		D/I		HARDWARE IDENTITY		PART NUMBER	
Mo.	Da.	Yr.															
961																	
REF DESIG.		SERIAL NO.		GROUP A		ACTIVE REPAIR		TOTAL EVENT		M		M		M		M	
J. CONN NO.		E P		PL		PP		TIME		L		R		E		P	
45		50		55		60		65		70		75		80		85	
85		90		95		100		105		110		115		120		125	
125		130		135		140		145		150		155		160		165	
165		170		175		180		185		190		195		200		205	

Figure 5

TAPE RECORD FORMAT

FILE NAME CONSUMABLE PARTS DATA

RECORD LENGTH 80

PAGE OF

DATE

FILE NUMBER Card Type 4

BLOCKING FACTOR 25

PARITY ☒ EVEN

☐ ODD

PAD W/9's ☐ YES

☒ NO

HEADER

☐ STANDARD

☒ NON-STANDARD

GAP ☒ 3/4"

☐

TAPE MARK ☒ YES

☐ NO

TRAILER

☐

☒

REMARKS:

961		DATE Mo Da Yr		PMR NO.		S U P I X		EQUIPMENT IDENT		R/C/E M		P/S P		D I S P		HARDWARE IDENTITY UN AS SA MOD		PART NUMBER	
45		5		10		15		20		25		30		35		40			
(P/N Cont.)		REF. DESIG J CONN NO.		SERIAL NO.		PART SYM		POS		FEDERAL STOCK NUMBER		MIL DEF		AWP DAYS		I T 4			
45		50		55		60		65		70		75		80					
85		90		95		100		105		110		115		120					
125		130		135		140		145		150		155		160					
165		170		175		180		185		190		195		200					

PROGRAM LISTINGS TO PUT NEW
FMR DATA ON TAPE AND CHECK DATA FOR ERRORS

Enclosure 6

CRD 292

] // JOB 1302-01 CDTAPE CARD-TAPE UTILITY (80/2000)
// ASSIGN SYS005,X'292'
// ASSIGN SYS004,X'00C'
// UPSI 00100000
// EXEC CDT
// UCT TR,FF,A=(80,80),B=(80,2000),11,OR,R1
// END
//
//

CDTAPE

292 290

] // JOB 1302-Q1 SRICIS SORT SQ GRP FMR CT SFX FSN CRS

// ASSON SYS002,X*292

// ASSON SYS001,X*290

// ASSON SYS003,X*131

// DLSL SORTMKI,,0

// EXTENT SYS003,999999,1,0,100,2000

// EXEC SORT

SORT FIELDS=(1,5,A,10,3,A,80,1,A,13,1,A,60,13,A,54,6,A),

FORMAT=B1,WORK=1

RECORD TYPE=F,LENGTH=80

INPFIL BLKSIZE=2000

OUTFIL BLKSIZE=2000

CPTION LABEL=(U,U,U)

END

/*

/E

SRTCTS

290 PNT

// JOB 1302-01 ERRCHK ERROR CHECK FOR MASTER DATA TAPE
// OPTION LINK,NODUMP,NOLISTX

// EXEC RPG

00000H

00010F*

00015F* THIS PROGRAM SEARCHES FOR ERRORS IN FMR TAPE DATA

00020F*

01010F TAPEIN IPE F2000 80 TAPE SYSOLL

01020FLIST 0 V 132 132 OF PRINTERSYSLST

020101 TAPEIN AA 01

020201 1 12 X1

020251 9 9 X9

020301 13 13 X13

020401 14 21 X14

020501 30 37 X30

020601 69 69 X69

020701 70 70 X70

020801 71 79 TIMES

021001 55 63 TIME3

020901 80 80 X80

021101 24 24 X24

021201 54 54 X54

021401 22 22 X22

021501 25 53 X25

021601 23 23 X23

021701 38 45 X38

021801 46 53 X46

021901 54 61 X54

022001 62 63 X62

022051 1 80 XAL

03010C N ADD 1 N 50

03020C 1P MOVE 14 P 1

03025C 01 SETOF 985548

03026C 01 SETOF 979695

03027C 01 SETOF 969392

03028C 01 SETOF 474645

03029C 01 SETOF 448481

03040C 01 COMP 11 X80

03050C 01 COMP 13 X80

03060C 01 COMP 14 X80

03064C 11 MOVE RECI RECS 50

03068C 11 MOVE N RECI 50

03070C 11 COMP 11

03075C 11 COMP 11

03080C 11 COMP 11

03090C 11 COMP 11

03100C 11 COMP X30

03110C 11 COMP X30

03120C 11 COMP X30

03130C 11 COMP X30

03140C 11 MOVE X1 S1 12

03150C 11 MOVE X14 S14 8

03160C 11 MOVE X69 S69 1

03170C 11 MOVE X70 S70 1

03180C 11 MOVE XALL XALLS 80

03190C 11 MOVE X80 P

ERRCHK

061450			XAL	130	
061500	D 11	01 48			
061510	OR	01 47			
061520	OR	01 46			
061530	OR	01 45			
061540	OR	01 44			
061600				15 'RECORD NO.'	
061700	N	Z	21		
061900				37 'MATCHING ERROR'	
062050			XAL	130	
070100	D 11	MOINIP			
070200				15 'RECORD NO.'	
070300	N	Z	21		
070400				45 'NOT A 961-JOB'	
070450			XAL	130	
070500	D 11	01 81			
070600				15 'RECORD NO.'	
070700	N	Z	21		
070800				40 'INVALID CARD TYPE'	
070850			XAL	130	
070900	D 11	01 84			
070930				15 'RECORD NO.'	
070940	RECS	Z	21		
070960				41 'GROUP TIMES DIFFER'	
070980			XALLS	130	
080000	T 21	LR			
081000				40 'END OF CHECK'	
082000	N	Z	70		
083000				88 'RECORDS PROCESSED'	
/ *					
ENTRY					
// EXEC LINKED					
// EXEC					
/ *					
/c					

] // JOB 1302-01 SRTCT3 MAKES MSTR DATA READY FOR PRITCH

// ASSIGN SYS002,X'290'

// ASSIGN SYS001,X'292'

// ASSIGN SYS003,X'131'

// DLPL SORTWK1,0

// EXTENT SYS003,999999,1,0,100,2000

// EXEC SORT

SORT FIELDS=(33,13,A,16,2,A),FORMAT=BI,WORK=1

RECORD TYPE=F,LENGTH=80

INPFIL BLKSIZE=2000

OUTFIL BLKSIZE=2000

OPTION LABEL=(U,U,U)

END

/*

/E

SRTCT3

TAPE AGAINST P/Q TABLE

PRTCHK CHECKS P/N'S OF DATA

JOB 1302-01 PRTCHK

// OPTION LINK

// EXEC RPG

00000H

01010TAPEN IPEAF2000 80 TAPE SYS013

01020FARTQY ISEAF2000 80 TAPE SYS012

01030FPRINT 0 V 132 132 OF PRINTERSYSLSLST

02010ITAPEN AA 10 80 C3

02020I 33 45 PN M2

02030I 16 17 GRP M1

02035I 1 80 REC

02040I 68 20 80 C4

02050I OR 80 C1

02060I XX 99

02080IPARTQTY DD 40

02090I

02100I

040100PRINT H 301 JP

040200 OR OF

040300

040400 D 11 10NMR

040500

040780

/*

ENTRY

// EXEC LNKEDT

// EXEC

/6

72 'EDIT LISTING'

30 'P/N NOT IN TABLE'

130

REC

PRTCHK

290 292

// JOB 1302-01 SRTCT4 MAKES MSTR DATA READY FOR FSNCHK

// ASSIGN SYS002,X'290'

// ASSIGN SYS001,X'292'

// ASSIGN SYS003,X'131'

// DLBL SORTMA1,0

// EXTENT SYS003,999999,1,0,100,2000

// EXEC SORT

SORT FIELDS=160,13,A,16,2,A1,FORMAT=81,WORK=1

RECORD TYPE=F,LENGTH=80

INPFIL BLKSIZE=2000

OUTFIL BLKSIZE=2000

OPTION LABEL=(U,U,U)

END

/*

//

SRTCT4

93.2 PNT

// JOE 1302-01 FSNCHK CHECKS FSN'S OF DATA TAPE AGAINST P/Q TABLE

// OPTION LINK

// EXEC RPG

OG000H

01010FTAPEIN IPEAF2000 80

01020FPARTQTY ISEAF2000 80

01030FPRT C V 132 132

02010ITAPEIN AA 10 80 C3

020501 OR 88 20 80 C4

020401

020201

020301

020351

020601 XX 99

02080IPARTQTY DD 40

020901

021001

040100PRINT H 301 1P

040200 OR OF

040300

040400 D 11 20NMR

040500

040780

/

ENTRY

// EXEC LINKEDT

// EXEC

/S

TAPE SYS013

TAPE SYS014

OF PRINTERSYST

60 72 FSN M2

16 17 GRP M1

1 80 REC

1 2 GP M1

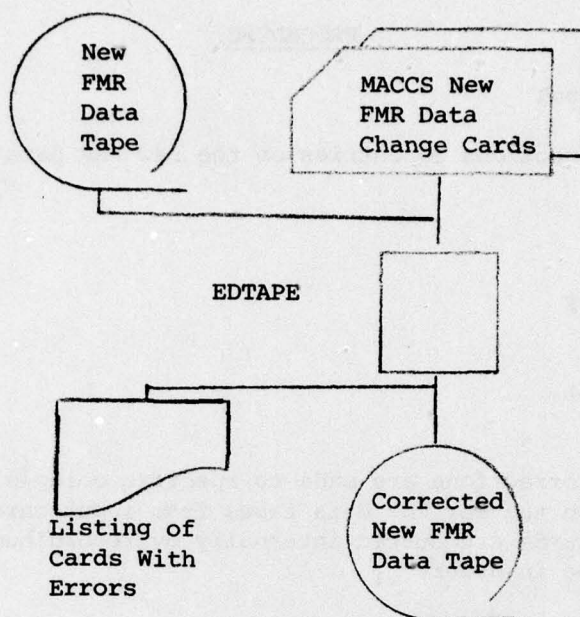
19 31 FSN2 M2

72 *EDIT LISTING*

30 *FSN NOT IN TABLE*

REC 130

FSNCHK



LOGIC FLOW TO MAKE CORRECTIONS
TO NEW FMR DATA TAPES

Enclosure 7

PROCEDURE

TITLE: NEWFMR - Correct

PURPOSE: To make corrections to entries on the new FMR data tapes

STEP 1:

Program: EDTAPE

Language: COBOL

Description: Corrections are made to specific columns in specific records on the New FMR data tapes from input cards. Since the input cards are sorted internally by record number, they need not be in order.

Inputs: (1) MACCS NEWFMR Data Change Cards

Format: See figure 1, p. 47

(2) New FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 2,3,4, pp. 48-50

Outputs: (1) Corrected new FMR data tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figures 2,3,4, pp. 48-50

(2) Listing of invalid cards for which corrections were not made.

WORK ORDER NO. 1302-01

ARINC RESEARCH CORPORATION

SHEET NO. _____ OF _____
DATE _____

Record No.		MACCS CHANGES		End
1	2	3	4	5
1	1	1	1	1
2	1	1	1	1
3	1	1	1	1
4	1	1	1	1
5	1	1	1	1
6	1	1	1	1
7	1	1	1	1
8	1	1	1	1
9	1	1	1	1
10	1	1	1	1
11	1	1	1	1
12	1	1	1	1
13	1	1	1	1
14	1	1	1	1
15	1	1	1	1
16	1	1	1	1
17	1	1	1	1
18	1	1	1	1
19	1	1	1	1
20	1	1	1	1
21	1	1	1	1
22	1	1	1	1
23	1	1	1	1
24	1	1	1	1
25	1	1	1	1

Figure 1

TAPE RECORD FORMAT

FILE NAME _____		GROUP DATA _____		RECORD LENGTH <u>80</u>		PAGE _____ OF _____		DATE _____	
FILE NUMBER _____		Card Type <u>1</u>		BLOCKING FACTOR <u>25</u>					
PARITY	<input checked="" type="checkbox"/> X	EVEN	<input type="checkbox"/>	ODD	<input type="checkbox"/>	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> X	NO
CAP	<input checked="" type="checkbox"/> X	3/4"	<input type="checkbox"/>	_____		TAPI MARK	<input checked="" type="checkbox"/> X	<input type="checkbox"/> YES	<input type="checkbox"/> NO
						HEADER	<input type="checkbox"/>	NON-STANDARD	<input type="checkbox"/>
						TRAILER	<input type="checkbox"/>	ACNE	<input checked="" type="checkbox"/> X

REMARKS:																																																				
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2">DATE</th> <th rowspan="2">FMR</th> <th rowspan="2">EQUIP IDENT</th> <th rowspan="2">R/C/E</th> <th colspan="2">GROUP</th> </tr> <tr> <th>Mo</th> <th>Da</th> <th>Yr</th> <th>Timer Reading</th> <th>Serial No.</th> </tr> <tr> <td>961</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> </div> <div style="width: 55%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4">TOTAL EVENT TIME</th> <th colspan="4">GROUP ACTIVE REPAIR</th> </tr> <tr> <th>M</th> <th>M</th> <th>F</th> <th>R</th> <th>F</th> <th>L</th> <th>P</th> <th>REP</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> </tr> </table> </div> </div>										DATE		FMR	EQUIP IDENT	R/C/E	GROUP		Mo	Da	Yr	Timer Reading	Serial No.	961							TOTAL EVENT TIME				GROUP ACTIVE REPAIR				M	M	F	R	F	L	P	REP								1
DATE		FMR	EQUIP IDENT	R/C/E	GROUP																																															
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TOTAL EVENT TIME				GROUP ACTIVE REPAIR																																																
M	M	F	R	F	L	P	REP																																													
							1																																													

Tape Record Format

FILE NAME	REPLACEMENT PARTS DATA	RECORD LENGTH	PAGE	OF	DATE
FILE NUMBER	Card Type 3	BLOCKING FACTOR	25		
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD			
GAP	<input checked="" type="checkbox"/> 3/4"				
		PAD W/9'S	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
		TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
		HEADER	<input type="checkbox"/> STANDARD	<input type="checkbox"/> NON-STANDARD	<input checked="" type="checkbox"/> NONE
		TRAILER	<input type="checkbox"/> STANDARD	<input type="checkbox"/> NON-STANDARD	<input checked="" type="checkbox"/> NONE

REMARKS:

[illegible]

Figure 3

FILE NAME	CONTINUABLE PARTS DATA	RECORD LENGTH	80	PAGE	OF	DATE
FILE NUMBER	Card Type 4	BLOCKING FACTOR	25			
PARITY	EVEN <input checked="" type="checkbox"/> ODD <input type="checkbox"/>	PAD W/9's	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	HEADER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
GAP	3/4" <input checked="" type="checkbox"/> <input type="checkbox"/>	TAPE MARK	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	TRAILER	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					STANDARD	NON-STANDARD

FILE NAME CONSUMABLE PARTS DATA RECORD LENGTH 80 PAGE OF DATE

FILE NUMBER Card Type 4 BLOCKING FACTOR 25

PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> 000	PAD W/91's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	HEADER	<input type="checkbox"/> STANDARD	<input type="checkbox"/> NON-STANDARD	<input checked="" type="checkbox"/> YES
GAP	<input checked="" type="checkbox"/> X	<input type="checkbox"/> 3/4"	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	<input type="checkbox"/> STANDARD	<input type="checkbox"/> NON-STANDARD	<input checked="" type="checkbox"/> YES

REMARKS:

DATE		FMR NO.	S U F F I Y	EQUIPMENT IDENT	R/ M	C/E	P/ S	D I S P	HARDWARE IDENTITY			PART NUMBER				
Mo	Da								yr	UN	AS		SA	MOD		
961																
FEDERAL STOCK NUMBER																
REF. DESIG/ J CONN NO.		SERIAL NO.		PART		SYM		POS		MIL DEF			AWP DAYS		I T	
(P/N Cont.)																
45		50		55		60		65		70			75		80	
85		90		95		100		105		110			115		120	
125		130		135		140		145		150			155		160	
165		170		175		180		185		190			195		200	

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Figure 4

PROGRAM LISTING TO MAKE CORRECTIONS
TO NEW FMR DATA TAPES

```
// JOB 1302-01 EDTAPE MAKE CORRECTIONS
// OPTION LINK,NOODUMP,NOKREF,NOLISTX
// ASSIGN SYS004,X'130'
// EXEC FCBOBL
```

IDENTIFICATION DIVISION.

PROGRAM-ID. EDIT69.

REMARKS. UPDATE AVCAL FILE USING CARDS WITH TAPE RECORD
NUMBERS IN COLUMNS 1-5, BEGINNING COLUMN NUMBERS IN
COLUMNS 6-7, ENDING COLUMN NUMBERS IN COLUMNS 8-9,
AND NEW DATA FOR THOSE COLUMNS IN COLUMNS 10-80.

ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT WORKFILE ASSIGN TO SYS001-DA-2314-S-\$ORTWK1.

SELECT CRD ASSIGN TO SYS004-UR-2540R-S.

SELECT REC3IN ASSIGN TO SYS011-UT-2400-S-AVINP.

SELECT REC3OUT ASSIGN TO SYS012-UT-2400-S-AVOUT.

DATA DIVISION.

FILE SECTION.

SD WORKFILE DATA RECORD IS SRTREC, LABEL RECORDS ARE STANDARD.

01 SRTREC.

02 CARDRECNO PIC S9(7), USAGE COMPUTATIONAL-3.

02 SRTRECCOL PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTENDCOL PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTDATA.

03 SRTCHAR OCCURS 71 TIMES, INDEXED BY SRTNDX, PIC X(11).

FD CRD LABEL RECORDS ARE OMITTED, DATA RECORD IS CARD-IMAGE.

01 CARD-IMAGE.

02 FILLER PIC X(80).

FD REC3IN LABEL RECORDS ARE OMITTED, DATA RECORD IS INREC,

BLOCK CONTAINS 25 RECORDS.

01 INREC.

02 FILLER PIC X(80).

FD REC3OUT LABEL RECORDS ARE OMITTED, DATA RECORD IS OUTREC,

BLOCK CONTAINS 25 RECORDS.

01 OUTREC.

02 OUTCHAR OCCURS 80 TIMES, INDEXED BY OUTNDX, PIC X(11).

WORKING-STORAGE SECTION.

77 ENDTEMP PIC S999, USAGE COMPUTATIONAL, SYNC.

77 TAPERECNO PIC S9(7), USAGE COMPUTATIONAL-3, VALUE 0.

77 DIFF PIC S9(3), USAGE COMPUTATIONAL-3.

77 END-INO PIC X, VALUE '0'.

77 OPRECNO PIC S9(7), USAGE COMP-3, VALUE 0.

01 UPDATE-CARD.

02 12COLS.

03 NCHAR OCCURS 9 TIMES INDEXED BY UPDNDX, PIC X(11).

02 3FIELDS REDEFINES 12COLS.

03 UPD-REC PIC 9(5).

03 UPD-BEG PIC 9(2).

03 UPD-END PIC 9(2).

02 UPD-DATA.

03 UPD-CHAR PIC X(71).

PROCEDURE DIVISION.

OPEN INPUT REC3IN, CRD, OUTPUT REC3OUT.

SORT WORKFILE ASCENDING KEY CARDRECNO, INPUT PROCEDURE

READ-CARDS, OUTPUT PROCEDURE UPDATE-TAPE.

EDTAPE


```

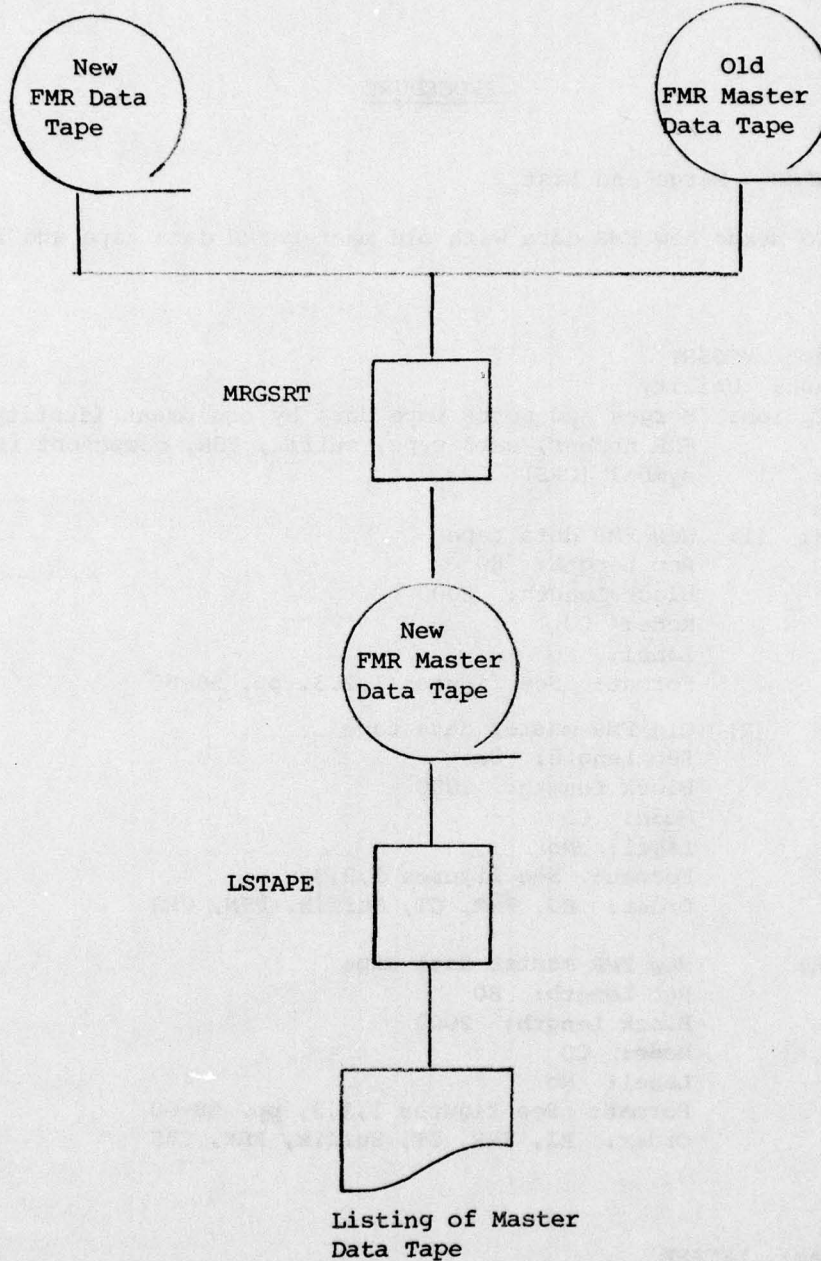
CLOSE REC3IN, REC3OUT.
STOP RUN.
READ-CARDS SECTION.
GET-CRD.
  READ CRD INTO UPDATE-CARD AT END GO TO LAST-CRD.
  PERFORM TEST-CHAR THRU TEST-XIT VARYING UPDNDX FROM 1 BY 1
  UNTIL UPDNDX GREATER THAN 9.
CHECK-FLDI.
  MOVE UPD-REC TO CARDRECNO.
  IF CARDRECNO = 0 GO TO ERR.
  MOVE UPD-REG TO SRTEGCOL.
  IF SRTEGCOL = 0 OR SRTEGCOL GREATER THAN 80 GO TO ERR.
  MOVE UPD-END TO SRTEUCOL.
  IF SRTEUCOL = 0 OR SRTEUCOL GREATER THAN 80 GO TO ERR.
  SUBTRACT SRTEGCOL FROM SRTEUCOL GIVING DIFF.
  IF DIFF LESS THAN 0 OR DIFF GREATER THAN 71 GO TO ERR.
  MOVE UPD-CHAR TO SRTEDATA.
  RELEASE SRTEC.
  GO TO GET-CRD.
ERR.
  DISPLAY ' *** ERROR ', CARD-IMAGE.
  GO TO GET-CRD.
LAST-CRD.
CLOSE CRD.
EXIT-READ.
EXIT.
TEST-CHAR SECTION.
  IF NCHAR (UPDNDX) = ' ' MOVE '0' TO NCHAR (UPDNDX)
  GO TO TEST-XIT.
  IF NCHAR (UPDNDX) LESS THAN '0' OR NCHAR (UPDNDX) GREATER
  THAN '9' GO TO ERR.
TEST-XIT.
EXIT.
UPDATE-TAPE SECTION.
  RETURN WORKFILE RECORD AT END STOP RUN.
GET-TAPE.
  READ REC3IN INTO OUTREC AT END GO TO LAST-REC.
  ADD 1 TO IAPERECD.
COMP-RECNO.
  IF CARDRECNO LESS THAN IAPERECD GO TO GET-SRTREC.
  IF CARDRECNO = IAPERECD GO TO UPDATE-RECORD.
  IF UPD-BEG = '80' AND UPD-END = '80' AND UPD-CHAR = SPACES
  GO TO GET-TAPE.
WRITE OUTREC.
  ADD 1 TO UPRECNO.
  GO TO GET-TAPE.
UPDATE-RECORD.
  MOVE SRTEUCOL TO ENDTEMP.
  SET SRINDX TO 1.
  PERFORM MOVECHAR THRU EXIT-MOVE VARYING OUTNDX FROM
  SRTEGCOL BY 1 UNTIL OUTNDX GREATER THAN ENDTEMP.
GET-SRTREC.
  RETURN WORKFILE RECORD AT END MOVE '1' TO END-IND, MOVE
  999999 TO CARDRECNO.
  GO TO COMP-RECNO.
LAST-REC.

```

```

]
DISPLAY SPACES.
DISPLAY TAPERECNO, ' RECORDS INPUT'.
DISPLAY OPRRECNO, ' RECORDS OUTPUT'.
IF END-IND = '1' GO TO EXIT-UPD.
DISPLAY SPACES.
NXT-REC.
DISPLAY ' *** NO RECORD '*, CARDRECNO.
RETURN WORKFILE RECORD AT END GO TO EXIT-UPD.
GO TO NXT-REC.
EXIT-UPD.
EXIT.
MOVECHAR SECTION.
MOVE SRTCHAR (SRTNDX) TO OUTCHAR (OUTNDX).
SET SRTNDX UP BY 1.
EXIT-MOVE.
EXIT.
/*
ENTRY
// EXEC LINKEDT
// ASSIGN SYS001,X'130'
// DLBL SORTWK1,0
// EXTENT SYS001,111111,1,0,3280,600
// EXEC
/*
/c

```

LOGIC FLOW TO MERGE NEW FMR DATA WITH
OLD MASTER FMR DATA TAPE AND LIST

Enclosure 10

PROCEDURE

TITLE: NEWFMR - Merge and List

PURPOSE: To merge new FMR data with old master FMR data tape and list

Step 1:

Program: MRGSRT

Language: Utility

Description: Merges and sorts tape data by equipment identity (EI),
FMR number, card type, suffix, FSN, component reference
symbol (CRS)

Inputs: (1) New FMR data tape
Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See figures 1,2,3, pp. 58-60

(2) Old FMR master data tape
Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See figures 1,2,3
Order: EI, FMR, CT, Suffix, FSN, CRS

Output: New FMR master data tape
Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See figures 1,2,3, pp. 58-60
Order: EI, FMR, CT, Suffix, FSN, CRS

Step 2:

Program: LSTAPE

Language: RPG

Description: Each record on the master data tape is numbered and
listed. The listing is designed to allow for ease
of verification and manual correction of data. It is
pointed out that this is an independent program and
can be used to list either the new FMR data tape or
the FMR master data tape.

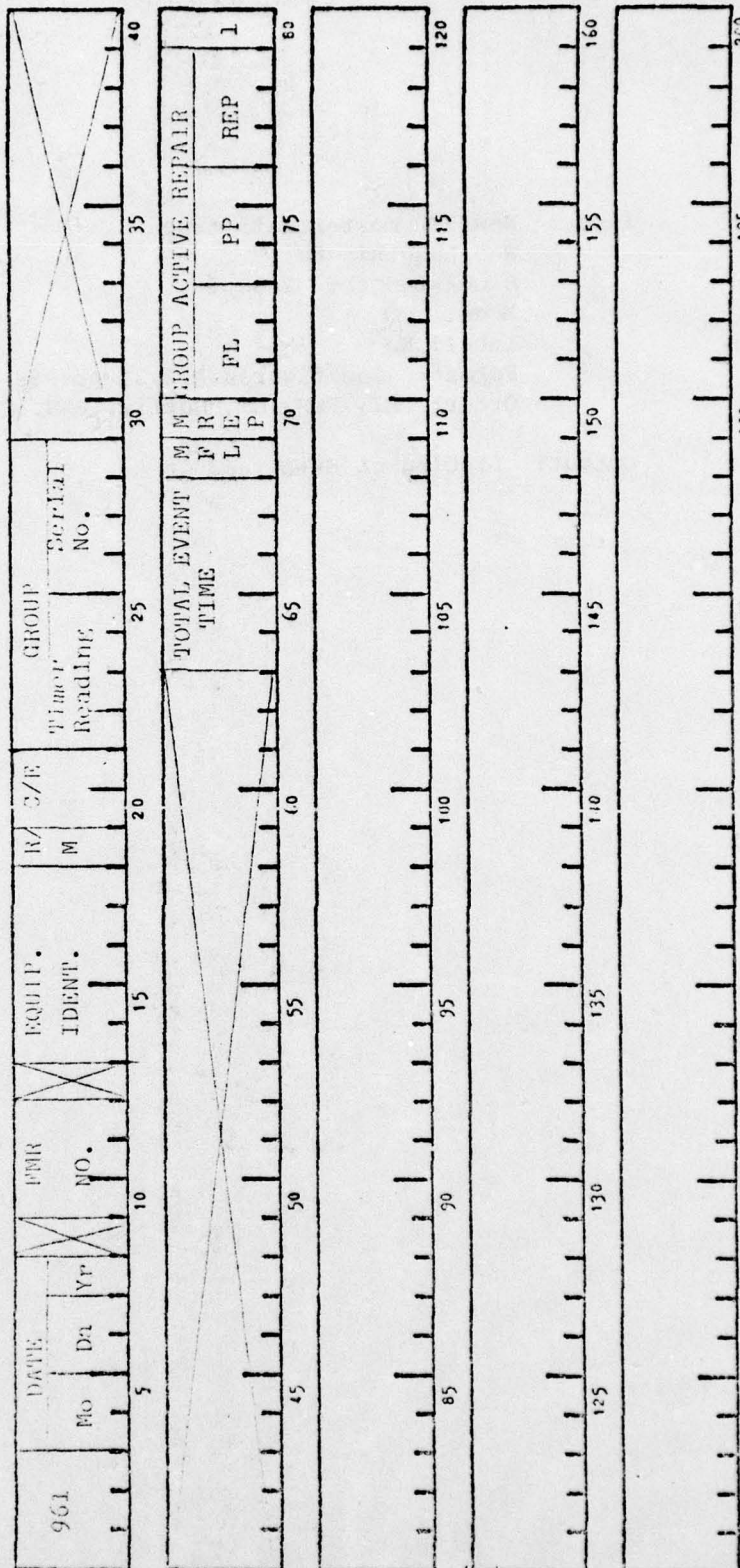
Input: New FMR master data tape
Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See figures 1,2,3, pp. 58-60
Order: EI, FMR, CT, Suffix, FSN, CRS

Output: Listing of data tape

TAPE RECORD FORMAT

FILE NAME		GROUP DATA		RECORD LENGTH	80	PAGE	OF	DATE
FILE NUMBER		Card Type 1		BLOCKING FACTOR	25			
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9'S		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	HEADER	<input type="checkbox"/> STANDARD
GAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/> —	TAPE MARK		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	<input type="checkbox"/> NON-STANDARD
								NO-1

REMARKS



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Figure 1

TAPE RECORD FORMAT

FILE NAME	CONSUMABLE PARTS DATA		RECORD LENGTH	80	PAGE	OF	DATE
FILE NUMBER	Card Type 4	BLOCKING FACTOR	25				
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	HEADER	<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> NON-STANDARD
GAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/> 1/2"	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	<input type="checkbox"/> STANDARD <input checked="" type="checkbox"/> NON-STANDARD

REMARKS

961	DATE Mo Da Yr	FMR NO.	S U P P	EQUIPMENT IDENT	R/ M	C/E	P/ S	D I S P	HARDWARE IDENTITY UN AS SA MOD	PART NUMBER		
(P/N Cont.)	REP. DESIG J CONN NO.	SERIAL NO.	PART SYM	POS	FEDERAL STOCK NUMBER					MIL DEF	AWP DAYS	I T 4
45	50	55	60	65	70	75	80					
85	90	95	100	105	110	115	120					
125	130	135	140	145	150	155	160					
165	170	175	180	185	190	195	200					

PROGRAM LISTINGS TO MERGE NEW FMR DATA
WITH THE OLD FMR MASTER DATA TAPE AND LIST

Enclosure 12

91,93 92

// JOB 1302-01 MRCSRT MERGE & SORT BY GRP SOD FMR CT SFX FSN CRS

// ASSIGN SYS003,X'291'

// ASSIGN SYS002,X'293'

// ASSIGN SYS001,X'292'

// ASSIGN SYS004,X'131'

// DLBL SORTWK1,0

// EXTENT SYS004,99999,1,0,100,2000

// EXEC SORT

SORT FIELDS=(14,5,A,10,3,A,80,1,A,13,1,A,60,13,A,54,6,A),

FORMAT=BI,FILES=2,WORK=1

RECORD TYPE=F,LENGTH=80

INPFIL BLKSIZE=2000

OUTFIL BLKSIZE=2000

OPTION LABEL=(U,U,U)

END

/*

/S

MRCSRT

// JOB 1302-01 LSTAPE LISTS MSTR DATA FMR TAPE

// OPTION LINK, NODUMP

// EXEC RPG

00000H

00010F* THIS PROGRAM LISTS THE MASTER (OR TEMPORARY) FMR DATA TAPE

00020F* TAPE SYS013 R

01010FREMTD IPE F2000 80 OF PRINTERSYSLT

01020FLIST O V 132 132

02010IREMTD AA 02

020201 1 3 X1

020301 4 5 X2

020401 6 7 X3

020501 8 8 X4

020601 10 12 X5

020701 14 15 X6

020801 16 18 X7

020901 19 19 X8

021001 20 21 X9

021101 22 23 X10

021201 24 24 X11

021301 25 25 X12

021401 26 32 X13

021501 33 45 X14

021601 46 49 X15

021701 50 53 X16

021801 54 54 X17

021901 55 59 X18

022001 60 63 X19

022101 64 68 X20

030101 69 70 X21

030201 71 72 X22

030301 73 75 X23

030401 76 78 X24

030501 79 79 X25

030601 80 80 X26

030701 13 13 X30

01 CARD TYPE 1

03 CARD TYPE 3

04 CARD TYPE 4

04040C 02 X26 COMP '1'

04020C 02 X26 COMP '3'

04030C 02 X26 COMP '4'

04040C 02 RECORD ADD 1

05010CLIST H 301 OF RECORD 50

050200 OR LP

050250 9 'REC. NO.'

050300 D 21 01 02 RECORDZ 6

050400 X1 12

050500 X2 15

050600 X3 17

050700 X4 18

050800 X5 22

050900 X6 27

051000 X7 30

051200 X8 33

051300 X9 36

051400 X10 39

051600	X11	40
051700	X12	41
051800	X13	49
051900	X20	111
052000	X21	114
060100	X22	117
060200	X23	120
060300	X24	123
060400	X25	124
060500	X26	130

D 1 02 03

060600	RECORD	6
060650	X1	12
060700	X2	15
060800	X3	17
060900	X4	18
061000	X5	22
061100	X30	24
061200	X6	27
061300	X7	30
061500	X8	33
061600	X9	36
061700	X10	39
061800	X11	40
061900	X12	42
062000	X13	49
070100	X14	63
070200	X15	68
070300	X16	73
070400	X17	95
070500	X18	101
070600	X19	105
070700	X20	111
070800	X21	114
070900	X22	117
071000	X23	120
071100	X24	123
071200	X25	124
071300	X26	130

D 1 04 02

071400	RECORD	6
071500	X1	12
071600	X2	15
071700	X3	17
071800	X4	18
071900	X5	22
072000	X30	24
080100	X6	27
080200	X7	30
080300	X8	33
080400	X9	36
080500	X10	39
080600	X11	42
080700	X12	49
080800	X13	63
080900	X14	68
081000	X15	

081300	X16	73
081400	X17	75
081500	X18	80
081600	X19	85
081700	X20	90
081800	X21	92
081900	X22	94
080100	X23	98
090200	X24	102
090300	X26	130

/*

ENTRY

// EXEC LINKED

// EXEC

//

**2. EQUIPMENT BREAKDOWN
ENCODING TABLES**

TABLE OF CONTENTS

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SECTION 1. INTRODUCTION

The attached encoding tables are to be used to obtain the numerical codes to be entered in columns 25-32 of card type 3 and card type 4.

SECTION 2. DESCRIPTION

Columns 25-32 of card type 3 and card type 4 are used to identify the position location of a hardware equipment unit, assembly, subassembly and module. The appropriate codes for the AN/TYQ-1, AN/TYQ-2, AN/TYQ-3 and AN/TPS-32 are listed in the attached tables.

AN/TYQ-1

ENCODING TABLE

Enclosure 1

EQUIPMENT BREAKDOWN FOR: AN/TYQ-1

Page 1

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
				AN/TYQ-1		Operations Group
01				99-193989-01		Display Generation Group OA-8569
01	01			99-192045-01		CMPTTR, Aux Display Gen CP-1018
01	01	01		39-193476-01		Video
		02		39-192484-01		Generator
		03		39-192488-01		Trackball Interface
		04		39-192492-01		Con. Termination B
		05		39-192500-02		Data Transfer No. 1
		06		39-192504-01		Data Transfer No. 2
		07		39-192512-01		Register K
		08		39-192542-01		Control No. 1
		09		39-192546-01		Control No. 2
		10		39-192558-01		Mode-Submode Counter
		11		39-192562-01		Positioner Co-Ord
		12		39-192584-01		Control No. 5
		13		39-192588-01		Control No. 6
		14		39-192592-01		Control No. 3
		15		39-192596-05		Control No. 4
		16		39-192600-01		Sub-Mode Control
		17		39-192604-01		Multiplexer Control
		18		39-192608-01		Interface
		19		39-192661-01		Conn. Termination
		20		39-192665-01		Computer Termination
		21		39-192677-01		Sync Distribution
		22		39-192681-01		Co-Ordinate Buffer
		23		39-194038-01		Extender Assy.
		24		39-197424-01		Maintenance Card
		25		39-204192-01		Clock Distribution
		26		39-205071-01		Memory Termination
		27		39-205075-01		Logic Termination
		28		82-201650-03	N1A01	Power Supply Assembly
		30		82-201655-01		Module A Assy. Wired

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	30	01	39-201-08-01	A1	-12V
			02	39-201-12-01	A2	+12V
			03	39-201-16-02	A3	-6V
			04	39-201-16-01	A4	-5V
			05	39-201-20-01	A5	Logic
			06	39-201-24-01	A6	Current Limiter
		31		82-201661-01		Module Assy. Wired
			01	39-201389-01	A1	Module B +5V Regulator
			02	39-201393-01	A2	Module C +20V Sensor
		32		82-201666-01		Module C Assy. Wired
			01	39-201388-02	A1	Module B +5V Regulator
			02	39-201396-01	A2	Module C -20V Sensor
		33		82-201671-01		Module D Assy. Wired
			01	39-201321-01	A1	-12V
			02	39-201333-01	A2	+12V
			03	39-201329-02	A3	-6V
			04	39-201329-01	A4	-5V
		34	05	39-201337-01	A5	Current Limiter
				82-201679-01		Module E Assy. Wired
			01	39-201519-02	A1	Module E +20V & +5V Regulator
			02	39-201325-01	A2	Module E +20V & +5V Sensor
		35		82-201683-01		Module F Assy. Wired
			01	39-201519-01	A1	Module F +20V & +5V Regulator
			02	39-201325-01	A2	Module F +20V & +5V Sensor
			03	39-204670-01	A3	Clock Driver
		36	04	39-205065-03	A4	Encoder Pre-Format
				39-192468-02		Memory Buffer
			01	39-20467-01	A1, A2	Clock Driver
		37		39-192468-02		Marker X Generation
			01	39-204670-01	A1, A2	Clock Driver
		38		39-192554-02		Master Timing
			01	39-204670-01	A1	Clock Driver

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	39		39-192612-02		Encoder No. 1
			01	39-204670-01	A1, A2	Clock Driver
		40		39-192472-01		Logic Decoder
			01	39-204670-01	A1, A2	Clock Driver
		41		39-192503-02		Register Display
			01	39-204670-01	A1	Clock Driver
		42		39-192669-02		Encoder No. 2
			01	39-204670-01	A1, A2	Clock Driver
		43		85-191250-01		Memory Unit Core
			01	39-192270-01	A1	Data
			02	39-192270-01	A2	Data
			03	39-192281-01	A3	Timing Control
			04	39-192273-01	A4	X/Y Driver
			05	85-204118-01	A4	Core Memory Unit
				99-191374-01		Console, Situation Display CJ 179/TYA-1 (V)
	02		01	39-190755-02	A1	Horiz Resonant Flyback Sweep Gen.
			02	39-197350-01	A2	Preamp & Focus
			03	39-197354-01	A3	Amp Power Focus
			04	39-193690-01	A4	Test Point
			05	39-190677-01	A5	Corn. Blanking Generator
			06	39-191375-01	A6	Lin. Corrector & Sweep Generator
			07	39-190629-01	A7	Sync. Processor
			08	39-191375-01	A8	Lin. Corrector & Sweep Generator
			09	39-190673-01	A9	Vert. Defl. Amp.
			10	39-190681-02	A10	Blanking, Sweep & Generation
			11	39-190751-01	A11	Video Preamp
			12	39-204176-01	A12	Video Amplifier
			13	85-193315-01	A13	SW Assy. Bulk
			14	38-192007-01	A14	Horiz. Amp. Assy.
			01	39-191269-01	A1	Horiz. Amp.
		16		85-191084-01	--	Coordinate Assy.
			01	SE-188534-01	A1	Trackball Assy.

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	02	15		851544-1		20 kV Power Supply
	03			99-191372-01		Console Assy. WASE AN/TSA-39
		01		39-190755-02	A1	Resonant Flyback Sweep Generator
		02		39-190694-01	A2	Half Field Switch
		03		39-191375-01	A3	Linearity Corrector
		04		39-190629-01	A4	Syn. Processor
		05		39-190751-01	A5	Video Pre-Amp.
		06		39-20176-01	A6	Video Amplifier
		07		39-191375-01	A7	Linearity Corrector
		08		39-190673-01	A8	Vert. Defl. Amp.
		09		39-190681-02	A9	Blanking & Sweep Generator
		10		38-192007-01	A10	Horiz. Amp. Assy.
			01	39-191269-01	A1	Horiz. Amp.
		11		38-192006-02	A11	Vertical Ampl.
		12		85-191100-01	A12	Electronic SW Assy.
		14		11900		Low Voltage DC Pwr. Supply
		15		851544-1		Pwr. Supply HV
		16		99-192021-01		Cabinet Assy.
01	04			99-192711-01		CDPU Su-56
		01		92-190847-01		Projection Unit Assy.
			01	86-191000-01	A1	5" CRT Assy.
			02	38-197603-01	A1-A1	Video Amplifier Assy.
		02		99-192570-01		Electronics Unit, Projection
			01	39-190755-01	A1	Sweep Resonant Flyback
			02	39-191269-01	A2	Horiz. Amp.
			03	39-191852-01	A3	Failure Detection
			04	39-190669-01	A4	Focus Gen. Dynamic
			05	39-191375-01	A5	Lin. Corrector Sweep Gen.
			06	39-190629-01	A6	Processor Sync.
			07	39-191375-01	A7	Lin Corrector, Sweep Gen.
			08	39-190673-01	A8	Amp. Vertical Deflection
			09	39-190681-02	A9	Blanking & Sweep Protector
			10	39-191117-01	A10	Reg. Cur. Pin Cushion Focus
			11	39-190747-01	A11	Reg. Cur. Centering Coil
			12	39-195651-01	A12	Beam Orbitor
			13	39-190751-01	A13	Pre. Amp. Video
			14	85-193315-01	A14	Elect. SW Assy. Bulk
			15	39-191269-01	A15-A1	Amp. Assy. Horiz. Deflection
			16	39-191269-01	A16-A1	Amp. Assy. Horiz Deflection
			17	38-192006-02	A17	Amp. Assy. Vertical
			18	851543-1	PS1	50 kV Power Supply
			19	85-193054-01		Panel Assy.
		03		32-192685-01		Truss Assy.

EQUIPMENT BREAKDOWN FOR: AN/TYQ-1

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
	05			741420-1		Inter. Comm. Sta. LS-595/U
		01		741570-1	A1	Resistor Matrix No. 1
		02		741570-1	A2	Resistor Matrix No. 1
		03		741570-1	A2	Resistor Matrix No. 1
		04		741530-1	A4	Resistor Matrix No. 2
		05		741530-1	A5	Resistor Matrix No. 2
		06		741480-1	A6	Ring Detector
		07		741480-1	A7	Ring Detector
		08		741535-1	A8	Flasher & Sw. Bd Ring Detector
		09		741476-1	A9	Amplifier
		10		741488-1	A10	AGC Amplifier
		11		741488-1	A11	AGC Amplifier
		12		741456-1	A12	Accessory Board
	06			741540-1		Loud Speaker/Amp. LS 596-U
		01		741546-1	A1	Amp. Speaker Loud Speak/Amp
	07			99-195118-01		Power Supply Ring Gen. Equip.
		01		741460-1		20 Hz Ring Sig. Generator
			01	742543-1	A1	Oscillator 20 Hz
			02	742548-1	A2	Phase Splitter
			03	742553-1	A3	Driver Amp.
			04	742593-1	A4	Inverter Ring Assy.
			05	741470-1	A5	+24V P.S.
			06	741470-1	A6	+24V P.S.
			07	741470-1	A7	+24V P.S.
	08			99-194453-01		Communications Group
		01		741550-1		TTY Matrix
			01	741554-1	A1 - A8	Signal Sensor
		02		741430-1		Combining Network
			01	741566-1	A1	Resistor Matrix
			02	741566-1	A2	Resistor Matrix

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	08	02	03	7-1496-1	A3	Amp. Dual Line
			04	7-1566-1	A4	Resistor Matrix
			05	7-1566-1	A5	Resistor Matrix
			06	7-1496-1	A6	Amp. Dual Line
			07	7-1566-1	A7	Resistor Matrix
			08	7-1566-1	A8	Resistor Matrix
			09	7-1496-1	A9	Amp. Dual Line
			10	7-1566-1	A10	Resistor Matrix
			11	7-1566-1	A11	Resistor Matrix
			12	7-1496-1	A12	Amp. Dual Line
			13	7-1496-1	A13	Amp. Dual Line
			14	7-1496-1	A14	Amp. Dual Line
			15	7-1496-1	A15	Amp. Dual Line
			16	7-1496-1	A16	Amp. Dual Line
			17	7-1464-1	A17	Control, Relays
		03		7-1440-1		Monitor Assy., 16 X 17 Matrix
			01	7-1445-1	A1	Accessory
			02	7-1496-1	A2	Amp. Dual Line
		04		7-1450-1		Direct Access Terminal
			01	7-2571-1	A1	Resistor Matrix
			02	7-1496-1	A2	Amp. Dual Line
			03	7-1484-1	A3	Ring Detector
			06	7-2571-1	A6	Resistor Matrix
			07	7-1496-1	A7	Amp. Dual Line
			08	7-1484-1	A8	Ring Detector
	09	01		32-221062-01		Data Terminal Rack
				7-1360-1	A2	TS-2969/G Digital Data Modem
			01	801430-1	A1	Lamp, Relay Driver
			02	801430-1	A2	Lamp, Relay Driver

EQUIPMENT BREAKDOWN FOR: AN/TYQ-1

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	09	01	04	801480-1	A4	4 Bit Shift Register
			05	801480-1	A5	4 Bit Shift Register
			06	801460-1	A6	2 Input Nand Gates
			07	801460-1	A7	2 Input Nand Gates
			09	801460-1	A9	2 Input Nand Gates
			11	801400-1	A11	5 Master Slave FFs
			13	801468-1	A13	4 Input Nand Gates
			14	801460-1	A14	2 Input Nand Gates
			16	801464-1	A16	3 Input Nand Gates
			17	801468-1	A17	4 Input Nand Gates
			19	801460-1	A19	2 Input Nand Gates
			20	801402-1	A20	7 Master Slave, FFs
			21	801474-1	A21	Line Receiver
			22	801474-1	A22	Line Receiver
			23	801474-1	A23	Line Receiver
			24	801474-1	A24	Line Receiver
			25	801474-1	A25	Line Receiver
			26	801474-1	A26	Line Receiver
			28	801474-1	A28	Line Receiver
			30	801470-1	A30	Line Driver
			32	801430-1	A32	Lamp, Relay Driver
			33	801410-1	A33	4 Input Gate Expanders
			35	801460-1	A34	2 Input Nand Gates
			36	801400-1	A36	5 MasterSlave FFs
			37	801460-1	A37	2 Input Nand Gates
			39	801460-1	A39	2 Input Nand Gates
			40	801402-1	A40	7 Master Slave FFs
			41	741274-3	PS 1	Power Supply Assy. Multiple Output
		02		741380-1	A3, A7	MD 835/G, Modern Digital Data
			01	801464-1	A1	3 Input Nand Gates
			02	801400-1	A2	5 Master Slave FFs
			03	801480-1	A3	4 Bit Shift Register

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	09	02	04	801460-1	A4	2 Input Nand Gates
			06	801452-1	A6	Temp. Compen. X Stal OSC
			07	801460-1	A7	2 Input Nand Gates
			08	801460-1	A8	2 Input Nand Gates
			09	801464-1	A9	3 Input Nand Gates
			10	801480-1	A10	4 Bit Shift Register
			11	801482-1	A11	8 Bit Shift Register
			12	801482-1	A12	8 Bit Shift Register
			14	801468-1	A14	4 Input Nand Gates
			15	801402-1	A15	7 Master Slave FFs
			16	801400-1	A16	5 Master Slave FFs
			17	801464-1	A17	3 Input Nand Gates
			18	801402-1	A18	7 Master Slave FFs
			19	801460-1	A19	2 Input Nand Gates
			20	801460-1	A20	2 Input Nand Gates
			22	801480-1	A22	4 Bit Shift Register
			23	801480-1	A23	4 Bit Shift Register
			24	801460-1	A24	2 Input Nand Gates
			25	801460-1	A25	2 Input Nand Gates
			27	801474-1	A27	Line Drive Receiver
			28	801474-1	A28	Line Receiver
			29	801474-1	A29	Line Receiver
			30	801474-1	A30	Line Receiver
			31	801474-1	A31	Line Receiver
			32	801474-1	A32	Line Receiver
			33	801474-1	A33	Line Receiver
			34	801468-1	A34	4 Input Nand Gates
			35	801402-1	A35	7 Master Slave FFs
			36	801480-1	A36	4 Bit Shift Register
			37	801460-1	A37	2 Input Nand Gates
			39	801452-1	A39	Temp Compen. Xstal OSC
			41	801460-1	A41	2 Input Nand Gates
			42	801480-1	A42	4 Bit Shift Register

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	09	02	43	801460-1	A43	2 Input Nand Gates
			44	801402-1	A44	7 Master Slave FFs
			45	801460-1	A45	2 Input Nand Gates
			46	801464-1	A46	3 Input Nand Gates
			47	801460-1	A47	2 Input Nand Gates
			48	801482-1	A48	8 Bit Shift Register
			49	801482-1	A49	8 Bit Shift Register
			50	801468-1	A50	4 Input Nand Gates
			51	801400-1	A51	5 MasterSlave FFs
			52	801460-1	A52	2 Input Nand Gates
			53	801480-1	A53	4 Bit Shift Register
			54	801460-1	A54	2 Input Nand Gates
			55	801402-1	A55	7 Master Slave FFs
			56	801402-1	A56	7 Master Slave FFs
			57	801460-1	A57	2 Input Nand Gates
			58	801480-1	A58	4 Bit Shift Register
			59	801480-1	A59	4 Bit Shift Register
			61	800392-1	A61	Line Light Driver
			62	801470-1	A62	Line Driver
			63	801470-1	A63	Line Driver
			64	801470-1	A64	Line Driver
			65	801470-1	A65	Line Driver
			66	801470-1	A66	Line Driver
			67	741325-1	A67	Freq. Shift Keying Xmitt.
			69	741333-1	A69	Voltage Control Osc
			70	741337-1	A70	Phase Lock Control
			71	74134-1	A71	Resistor Capacitor Select
			72	741345-1	A72	Active Filter
			73	741356-1	A73	Pulser/Slicer
			74	741329-1	A84	Freq. Shift Keying Xmitt.
			75	741390-1	A75	Equalizer

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
40				GFE		Teletypewriter AN/TGC-14
41				GFE		Teletypewriter AN/TGC-29
42				GFE		Switchboard SB-22/PT
43				GFE		Telegraph Terminals TH-85
50				32-192793-01		Elect. Shelter S-471/TYQ-1(CV)
	01			85-194963-01		Panel, Power
51				HD-870/U		Air Conditioner
52				87-193535-01		Footswitch
53				99-192405-02		Inflatable Shelter (TYA-1) S-469
	01			6922001-2		Manual Status Board
54				BR6100-503		Lighting Fixture
	01			69034		Ballast (6250-484-8966)
	02			BR8113-501		Incan. Light in Huts
55				112700		Head Phone Set
56						Cables
57						Power Control Panel OA 8651/TYA-13
58				23J28002-2		AN/TYA-3 Hut

AN/TYQ-2

ENCODING TABLE

(AN/TYA-5)
(AN/TYA-6)
(AN/TYA-18)
(AN/TYA-7)
(AN/TYA-12)
(AN/TYA-9)

Enclosure 2

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	50	01	01	532125-000	A1	Electronic Equip. Cabled Rack - Left
		02		532130-000	PS1	12V Power Supply PP4303
				531250-000	PS2A250	Amplifier Regulator
				531251-000	A1PS1A251	Electron Protector Circuit
02				532107-000		Drum and PS Cabled Rack
	02			532102-000		Indicator Roll Chart Panel Assy.
		10		530408		Indicator Roll Chart Front Panel
	04			530461		O & M Panel Assembly
		11		530411		O & M Front Panel
	03			530460		Maint. and Drum Operator Panel Assy
		12		530414		Maint. and Drum Operation Front Panel
	01			532100-000		Computer Drum, MU507
		13		532001-000		Drum Subassembly
				532004-000		Rotor Subassembly
	50			532130-001		12V Power Supply, PP4303
		01		531250-000		Amplifier Regulator
		02		531251-000		Electron Protector Circuit
	51			532132-000		26.5V Power Supply, PP4296
		01		531250-000		Amplifier Regulator
		02		531251-000		Electron Protector Circuit
03			531226-000		Electronic Equip. Cabled Rack - Right	
04			GFE		Air to Gnd. Data Terminal, CV-1829	
50			532115-000		Hut Structure Assembly	
	71		532902		Air Conditioner	
	72		532903		Air Conditioner Amplifier Control	
	85		532109-000		Power Distribution Box	
	90				Hut Lighting	
	91		GFE		Hut Telephone, TA 312/PT	
	82		533111-003		AC Power Harness	
	70		532901		Temperature Control Panel	
	86		532116-000		RFI Filter & Comm. Panel Assy.	
	96		536324		Air Conditioner Power Cable Assy.	
	97		536325		Air Conditioner Control Cable Assy.	

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01				532225-000		Electronic Equipment Cabled Rack
02	11			533227		Magnetic Drum Cabled Rack
		11		532201-000		Drum Servo Assy. "L"
		12		532206-000		Drum Servo Subassy.
		13		532208-000		Error Detector Subassy.
			01	532131-000		SCR Voltage Regulator
			02	531060-001		Frequency Sensor
			03	531062-000		Error Detector
			04	531063-000		Sensor Simulator Amplifier
				531066-000		Test & External Trigger
	11			532201-000		Drum Servo Assy. "M"
	10			532200		Magnetic Drum "L"
		10		532202-000		Magnetic Drum Subassy.
			05	532003-000		Rotor Subassy.
				532200		Magnetic Drum "M"
		10		532002-000		Magnetic Drum Subassy.
			05	532003-000		Rotor Subassy.
03	14			533223		RIDP Panel Cabled Rack
		15		532204-000		" Operate Panel Assy. "L"
				534157		" Operate Front Panel
		15		532204-000		" Operate Panel Assy. "M"
				534157		" Operate Front Panel
04				532205-000		Power Supply & Radar Cabled Rack
50	85			532209-000		Power Distribution Box
50	70			532901-000		A. C. Temperature Control
04	13			532203-000		Maintenance Panel Assy.
		14		534156		Maintenance Front Panel
	50			532130-001		12V Power Supply
		01		531250-000		Amplifier Regulator
		02		531251-000		Electron Project Circuit
	51			532132-001		26.5V Power Supply, PP4296
04	51	01		531250-000		Amplifier Regulator
		02		531251-000		Electron Project Circuit
	52			532134-001		30V Power Supply, PP-4295
	12			532202-000		Video Quantizer Assy. "L"
		16		530539		Video Quantizer Chassis
				531224-000		Video Line Driver Amp.
				531273-000		Electron Switch Amp.
				531226-000		Threshold Set Amp.
				531227-000		Summation Feedback Amp.
				531228-000		Integrator one-shot Multivibrator
				531229-000		Jamming Detect Amp.
	12			532202-000		Video Quantizer Amp. "M"
	16			532217-000		IFF Decoder, KY-569
5				532400		Signal Data Converter, CV-1927
				531101		NOR Diode Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature		
Unit	Assy	SA	Mod					
05	54	05 06		531102		NOR Flip Flop		
				531003		NOR Inverter		
				531107		NOR Coaxial Line Driver		
				531109		NOR Line Receiver		
				531111		NOR Lamp Driver		
				531116		NOR Digital Filter		
				531219		Radar Interface, Circuit #I		
				531222		Radar Interface Buffer		
				531223		Radar Interface, Circuit #II		
				531224-000		Video Line Driver Amp.		
				531239		Radar Trigger Pulse Generator		
				531270		Quantizer Circuit		
				531271		Radar One-Shot		
				531274		Bipolar Mode Gate Driver		
				531275		Bipolar Trigger Generator		
				532137		Power Supply, PP-4298		
			50	71	05 06		531254	
	531255					Voltage Regulator		
	532400					Signal Data		
	532215					Hut Structure Assy.		
	532903-000					Air Conditioner		
	86					532216-000		RFI Filter
	72					523903-000		A.C. Amp. Control
	90					533211		Hut Lighting
	82						AC Power Harness	
	91						Hut Telephone, TA-312/PT	
	81		532249		Basic Hut			
	96		536324		A.C. Power Cable Assy.			
	97		536325		A. C. Control Cable Assy.			

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01 02			532276		Electronic Equipment Cabled Rack
				532256-000		Status Panel Assy. 2-D
				532254-000		Operations Panel Assy. 2D
02	11	11 12	01 02 03 04	536457		Magnetic Drum Rack
				532221-0000		Magnetic Drum Servo "L"
				532206		Magnetic Drum Servo Subassy.
				532208-000		Error Detector Sub-Chassis
				531060-001		Drum Velocity Loop Error Detector
				531062-000		Electron Phase Error Synchronizer
				531063-000		Sensor Simulator Amp.
				531066-000		Test Signal Generator
				532131-000		Controller Rectifier Voltage Reg.
				532250-000		Magnetic Drum 10 inch
				532005-000		Magnetic Drum Subassy.
				532006-000		Rotor Subassy.
				532221-0000		Magnetic Drum Servo "M"
				532250-000		Magnetic Drum 10 inch
04	85 70 03 04	16		532255-000		Radar & Power Supply Cabled Rack
				532259-000		Power Distribution Box
				532901		A. C. Temperature Control
				532253-000		Maintenance Panel Assy.
				532260-000		DC Power Monitor
				532202-000		Video Quantizer
				530539		Video Quantizer Chassis
				531224-000		Video Line Driver Amp.
				531226-001		Threshold Set Amp.
				531228-000		Integrator Multivibrator
				531229-000		Jamming Detector Amp.
				531273-000		Electron Switch Amp.
				531227-000		Summation Amp.
				532217-000		IFF Decoder KY-569
04	12 12 50	01 02		532202-000		Video Quantizer Code M
				532202-000		Video Quantizer Code V
				532130-001		Power Supply, PP-4303
				531250-000		Regulator
				531251-000		Electron Projector Circuit
				532132-001		Power Supply, PP-4296
				531250-000		Regulator
				531251-000		Electron Projector Circuit
				532134-001		Power Supply PP-4295

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
06	13 14			532275-000 532263-000 532264-000		Electronic Equipment Cabled Rack Status Panel - 3D Operations Panel - 3D
05				532400 531101 531102 531103 531107 531109 531111 531116 531219 531222 531223 531224-000 531239 531270 531271 531274 531275 532137 531254 531255		Signal Data Converter NOR Diode Gate NOR Flip-Flop NOR Inverter NOR Coaxial Line Driver NOR Line Receiver NOR Lamp Driver NOR Digital Filter Radar Interface, Circuit I Radar Interface, Buffer Radar Interface, Circuit II Video Line Driver Amp. Radar Trigger Pulse Generator Quantizer Circuit Radar One-Shot Bipolar Mode Gate Driver Bipolar Trigger Generator Power Supply, PP-4298 Electron Projector Circuit Voltage Regulator
05	54	05 06		532400		Signal Data Converter CV-1927
50	71 86 72 90 91 81 73 72			532256-000 532902 532266-000 532903 532299 532900 532903		Hut Structure Assy. Air Conditioner RFI Filter & Connector Panel A.C. Amp Control Hut Lighting Hut Telephone, TA-312/PT Basic Hut A.C. Temp. Sensor A. C. Amp. Control

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	21	14 20	03	533350		Radar Mapper Cabled Rack
				532301-000		Video-Radar Converter #1
				532331-000		Video-Radar Converter Subassy.
				532337-000		Photomultiplier Tube Assy.
				530581		Mask
		21		532339-000		Photomultiplier Tube Socket Assy.
		06	26 27	532310-000		CRT Microposition Assy.
				532313-000		Micropositioner Subassy.
				532314-000		Micropositioner Power Supply
	18 19 10			531215-000		Micropositioner P.S. Card Type #1
				531216-000		Micropositioner P.S. Card Type #2
				532335-000		CRT Electron Projector Circuit
				532336-000		CRT Focusing Control
				532304-000		Censor Mapper Defl. Amp. Assy.
		10	04	534379		Deflection Amplifier Subassy.
	22			532301-000		Video-Radar Converter #2
	23			532301-000		Video-Radar Converter #3
	24			532301-000		Video-Radar Converter #4
02	56			532322-000		Power Supply Cabled Rack
				532140-000		1.8kV Power Supply, PP-4299
	56			530530		High Voltage Assy.
	58			532143-000		10kV Power Supply, PP4300
	58			537750		High Voltage Assy.
03	03	15 20		533351		Censor Mapper Cabled Rack
				532301-000		ClearPlot Video Converter, CV-1928
				532332-000		ClearPlot Video Converter Subassy
				532337-000		Photomultiplier Tube Assy,
03	03	20 21	03	530581		Mask
				532339-000		Photomultiplier Tube Assy.
		06	26 27	532310-000		CRT Micropositioner Assy.
				532313-000		CRT Micropositioner Subassy.
				532314-000		Micropositioner Power Supply
				531215-000		Micropositioner Power Supply Card Type #1
				531216-000		Micropositioner Power Supply Card Type #2
		18 19 10		532335-000		CRT Electron Projector Circuit
				532336-000		CRT Focusing Control
				532304-000		Censor Mapper Defl. Amp. Assy.

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
04	04	16	27	532303-000		Monitor Video Converter IP-788
		12		532333-000		Monitor Video Converter Subassy.
				532311-000		CRT Assy.
				532314-000		Micropositioner Power Supply
				531215-000		Micropos. Power Supply Card Type #1
				531216-000		Micropos. Power Supply Card Type #2
	01	10	04	532304-000		Deflection Amplifier
		10		534379		Def. Amp. Subassy.
		18		532335-000		CRT Electron Projector Circuit
		17		532300		Crosstell Video Converter CV-1929
		19		532334-000		Crosstell Video Converter Subassy.
		06		532336-000		CRT Focusing Control
			26	532310-000		CRT Micropositioner Assy.
				532313-000		CRT Micropositioner Subassy.
				532314-000		Micropositioner Power Supply
				531215-000		Micropos. Power Supply Card Type #1
				531216-000		Micropos. Power Supply Card Type #2
		18		532335-000		CRT Electron Projector Circuit
		10	04	532304-000		Deflection Amplifier
				534379		Deflection Amp. Subassy.
		20		532337-000		Photomultiplier Tube Assy.
		21				Photomultiplier Tube Socket
	56		24	532323-000		Power Supply Cabled Rack
				532140-000		1.8kV Power Supply
	57			530530		High Voltage Assy
				532142-000		7kV Power Supply PP-4297
	58	23		530130		High Voltage Assy.
				532143-000		10kV Power Supply PP-4300
05				532330-000		Electronic Equipment Cabled Rack
06				532327-000		Power Supply Cabled Rack
50	85			532309-000		Power Distribution Panel
06	05			532328-000		Maintenance & Operation Panel
		22		533335		Maintenance & Operation Front Panel
	50			532130-0001		12V Power Supply PP-4303
		01		531250-000		Regulator Amplifier
		02		531251-000		Electron Projector Circuit
	52			532134-0001		30V Power Supply PP-4295
		01		531250-000		Regulator Amplifier
		02		531251-000		Electron Projector Circuit
	51			532132-0001		26.5V Power Supply PP-4296
		01		531250-000		Regulator Amplifier
		02		531251-000		Electron Projector Circuit

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
50	53	05 08		532136-000		Display Power Supply PP-4302
				531254		Electron Project, Overcurrent
				531257-000		Display Regulator
				532315-000		Hut Structure Assy.
	81			532997-000		Basic Hut
	71			532902-000		Air Conditioner
	90					Hut Lighting
	82			534149		A.C. Power Harness
	83			534150-0001		DC Power Harness
	84			534151		Signal Power Harness
50	91			GFE		Hut Telephone
	70			532901-0001		Temperature Control Panel
	97			536325		Air Conditioner Control Cable Assy.
	72			532903-000		Air Conditioner Amplifier

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	19			532704-000		Cable Switch Board Assy.
	22			532722-000		Com. Status Panel Assy.
		34		532738-000		Com. Switchboard Control
		35		530658-0400		Switchboard Control Subassy. I
	66			530569-0400		Switchboard Control Subassy. II
		30		532736-000		Intercom Station Audio Control
	65			530656-400		Audio Control Subassy. UHF-Net
		27		532734-000		Intercom Station Audio Control
		28		530653-0400		Audio Control Subassy. I
				530654		Audio Control Subassy. II
				GFE		Operators Pack TA-221/PT
02	23			530570-0003		Electronic Equipment Rack
	25			532740-000		Telephone Terminal Assy. TA-486
	26			532741-000		Telephone Terminal TA-488
	13			532742-000		Telephone Terminal TA-487
	16			532713-000		Intercom Station IS-522
	17			532718-000		Missile Bat. Data Terminal Buffer
	18			532719-000		Control Sec. Data Terminal Buffer
	54			532721-000		-95V Power Supply
		05		532137-000		Power Supply PP-4298
		06		531254-000		Electron Projector, Overcurrent
				531255-000		Voltage Regulator
03	14			530570		Com. Electronic Equipment Rack
	10			532714-000		Telegraph, Telephone Terminal TA-484
	10			532708-000		Telegraph, Telephone Terminal TA-485
	14			532708-000		Telegraph, Telephone Terminal TA-485
	11			532709-000		Analog Missile Bat. Data Terminal
	12			532711-000		Analog Missile Bat. Data Terminal
	12			532711-000		Intercenter Data Terminal
	15			532717-000		Intercenter Data Terminal Buffer
	15			532717-000		Intercenter Data Terminal Buffer
	54			532137-000		Power Supply PP-4298
		05		531254-000		Electron Projector, Overcurrent
		06		531255-000		Voltage Regulator
04	54			534242		Power Supply Rack
				532137-000		Power Supply PP-4298
		05		531254-000		Electron Projector, Overcurrent
		06		531255-000		Voltage Regulator
05				GFE		Radio Set GRC-134
06				532705		Radio Equipment Rack
07				GFE		100W Tuned Cavity Filter
08				GFE		100W Tuned Cavity Filter
19				GFE		1kW Tuned Cavity Filter
10				GFE		Radio Set, GRC-112

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HANDBOOK OF PROCEDURES: RELIABILITY AND MAINTAINABILITY MONITOR--ETC(U)

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
50				532715-000		Hut Structure Assy.
	81			532749-000		Electronic Com. Shelter
	85			532726-000		Power Distribution Panel
	87			532725-000		Com. Terminal
	86			532716-000		RFI Filter & Con. Panel Assy.
	71			532902		Air Conditioner
	90					Hut Lighting
	83			533718		DC Power & Signal Harness
	82			533719		AC Power Harness
	91			GFE		Hut Telephone TA 312/PT
	94			GFE		UHF Single Antenna
	95			GFE		UHF Dual Antenna
	73			532900		A.C. Temperature Sensor
	70			532901		A. C. Temperature Control Panel
	72			532903		A. C. Control Amp.
	88			536395		Emergency Power Battery Box

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
10				532370-000		Power Control Unit
11				532355-000		Maintenance & Operation Panel
13	19			532358-000 532397-000		Aux. Data Indic. Digital Display Aux. Display Cabled Chassis
14	11			530612		Indicator-Operator Housing
		21		532357-001		Comp. Data Entry Control
	10			532373-000		Data Entry Cabled Panel
		10		532350-000		Control Indicator
		10		532351-000		Control Indicator Cable Chassis
		20		532371-000		CRT Electron Tube Unit
		32		532366-000		Signal Indicator Conduct. Glass
		22		532388-001		Upper Electr. Equip. Cabled Rack
		12		532354-000		Electrostatic Coupler
		11		532353-000		Min. Def. Amp.
			01	530575		Min. Def. Amp. Subchassis
	28			532389-000		R. H. Electronic Equip. Cabled
		33		532352-000		Major Def. Electron Beam Amp.
	59			532146-000		10kV Power Supply PP-4301
		34		530682		High Voltage Assy.
		35		530691		Power Supply Regulator
		36		530573		Amp. Subassy.
		37		530569-000		Oscillator Subassy.
	10	19		532368-000		Front Panel
			02	530680		Pencil, Electric
	13			532390-000		Analog Entry Cabled Panel
	20			532398-000		Analog Entry Card Rack
	24			532735-000		Intercom Station Trunk Control
		29		530655		Trunk Control Subassy.
	22			532733-000		Intercom Station Net Control
14	26			532737-000		Intercom Station UHF Chan. Cont.
		31		530657		Channeling Control Subassy.
	66			532736-000		Intercom Station UHF Audio Cont.
		30		530656		Audio Control Subassy.
	21			532732-000		Intercom Station Internal Cont.
		26		530651		Intercom Control Subassy.
	65			532734-000		Intercom Station Audio Control
		27		530653		Audio Control Subassy. No. 1
		28		530654		Audio Control Subassy. No. 2
	27			533623		Status Panel, Plastic
15				532383-000		Power Supply Cable Rack
	55			532139-000		Def. Amp. Power Supply
		09		531258-001		Reg. Project. Circuit
	50			532130-001		12V Power Supply PP-4303

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
		01		531250-000		Amp. Regulator
		02		521251-000		Electr. Proj. Circuit
	52			532134-001		30V Power Supply PP-4295
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Proj. Circuit
	53			532136-000		Display Power Supply PP-4302
		05		531254-000		Electr. Prot., Overcurrent
		08		531257-000		Display Regulator
	51			532132-001		26.5V Power Supply PP-4296
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	17			532394-000		Display Control Unit #1
		16		532363-000		Electronic Equip. Cabled Rack
	14			532391-000		Display Control Unit #2
		13		532360-000		Electronic Equip. Cabled Rack
20				532370-000		Power Control Unit
21				532355-000		Maintenance & Operation Panel
23				532358-000		Aux. Data Indic. Digital Display
	19			532397-000		Aux. Display Cabled Chassis
24				530612		Indicator-Operator Housing
	11			532357-001		Comp. Data Entry Control
		21		532373-000		Data Entry Cabled Panel
	10			532350-000		Control Indicator
		10		532351-000		Control Indicator Cable Chassis
		20		532371-000		CRT Electron Tube Unit
		32		532366-000		Signal Indicator Conduct. Glass
		22		532388-001		Upper Electr. Equip. Cabled Rack
		12		532354-000		Electrostatic Coupler
		11		532353-000		Min. Def. Amp.
			01	530575-000		Min. Def. Amp. Subchassis
	28			532389-000		R.H. Electronic Equip. Cabled
		33		532352-000		Major Def. Electron Beam Amp.
	59			532146-000		10 kV Power Supply PP-4301
		34		530682		High Voltage Assy.
		35		530691		Power Supply Regulator
		36		530573		Amp. Subassy.
		37		530569		Oscillator Subassy.
	10	19		532368-000		Front Panel
			02	530680		Pencil, Electric
	13			532390-000		Analog Entry Cabled Panel
	20			532398-000		Analog Entry Card Rack
	24			532735-000		Intercom Station Trunk Control
		29		530655		Trunk Control Subassy.
	22			532733-000		Intercom Station Net Control
24	26			532737-000		Intercom Station UHF Chan. Cont.
		31		530657		Channeling Control Subassy.

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
25	66	30		532736-000		Intercom Station UHF Audio Cont.
	21		530656		Audio Control Subassy.	
				532732-000		Intercom Station Internal Cont.
		26		530651		Intercom Control Subassy.
	65	27		532734-000		Intercom Station Audio Control
				530653		Audio Control Subassy, No. 1
				530654		Audio Control Subassy, No. 2
	27	28		533623		Status Panel, Plastic
				532383-000		Power Supply Cable Rack
	55	09		532139-000		Def. Amp. Power Supply
				531258-001		Reg. Protect. Circuit
	50			532130-001		12V Power Supply PP-4303
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	52	01		532134-001		30V Power Supply PP-4295
				531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	53	05		532136-000		Display Power Supply PP-4302
				531254-000		Electr. Prot., Overcurrent
		08		531257-000		Display Regulator
	51	01		532132-001		26.5V Power Supply PP-4296
				531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	15	15		532392-000		Display Control Unit #1
				532362-000		Electronic Equip. Cabled Rack
	18		18	532395-000		Display Control Unit #2
				532367-000		Electronic Equip. Cabled Rack
						Console No. 3
30				532370-000		Power Control Unit
31				532355-000		Maintenance & Operation Panel
33	19			532358-000		Aux. Data Indic. Digital Display
				532397-000		Aux. Display Cabled Chassis
34				530612		Indicator-Operator Housing
	11	21		532357-001		Comp. Data Entry Control
				532373-000		Data Entry Cabled Panel
	10	10		532350-000		Control Indicator
				532351-000		Control Indicator Cable Chassis
				532371-000		CRT Electron Tube Unit
				532366-000		Signal Indicator Conduct. Glass
				532388-001		Upper Electr. Equip. Cabled Rack
				532354-000		Electrostatic Coupler
				532353-000		Min. Def. Amp.
		01		530575		Min. Def. Amp. Subchassis

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
34	28	33		532389-000 532352-000		R. H. Electronic Equip. Cabled Major Def. Electron Beam Amp.
	59			532146-000		10kV Power Supply PP-4301
		34		530682		High Voltage Assy.
		35		530691		Power Supply Regulator
		36		530573		Amp. Subassy.
		37		530569-000		Oscillator Subassy.
	10	19		532368-000		Front Panel
			02	530680		Pencil, Electric
	13			532390-000		Analog Entry Cabled Panel
	20			532398-000		Analog Entry Card Rack
	24			532735-000		Intercom Station Trunk Control
		29		530655		Trunk Control Subassy.
	22			532733-000		Intercom Station Net Control
	26			532737-000		Intercom Station UHF Chan. Cont.
		31		530657		Channeling Control Subassy.
	66			532736-000		Intercom Station UHF Audio Cont.
		30		530656		Audio Control Subassy.
	21			532732-000		Intercom Station Internal Cont.
		26		530651		Intercom Control Subassy.
	65			532734-000		Intercom Station Audio Control
		27		530653		Audio Control Subassy. No. 1
		28		530654		Audio Control Subassy. No. 2
	27			533623		Status Panel, Plastic
35				532383-000		Power Supply Cable Rack
	55			532139-000		Def. Amp. Power Supply
		09		531259-001		Reg. Protect. Circuit
	50			532130-001		12V Power Supply PP-4303
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	52			532134-001		30V Power Supply PP-4295
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	53			532136-000		Display Power Supply PP-4302
		05		531254-000		Electr. Prot., Overcurrent
		08		531257-000		Display Regulator
	51			532132-001		26.5V Power Supply PP-4296
		01		531250-000		Amp. Regulator
		02		531251-000		Electr. Prot. Circuit
	16			532393-000		Display Control Unit #1
		17		532364-000		Electronic Equip. Cabled Rack
	12			532359-000		Display Control Unit #2
		14		532361-000		Electronic Equip. Cabled Rack
	54			532137-000		Power Supply PP-4298
		05		531254-000		Electr. Protector, Overcurrent
		06		531255-000		Regulator Circuit

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
40				GFE		Teletypewriter AN/TGG-15
41				532387-000		Teletype Relay
42				GFE		Crypto, TSEC/KW7
43				533831		Electronic Equipment Cabinet
	29			532372-000		Communication System Control Group
	24			532735-000		Intercom Station Trunk Control
		29		530655		Intercom Trunk Control Subassy
	22			532733-000		Intercom Station Net Control
		30		530656		Audio Control Subassy.
	26			532737-000		Intercom Station UHF Channeling Control
		31		530657		Intercom UHF Channeling Subassy.
	66			532736-000		Intercom Station UHF Audio Control
		30		530656		Audio Control Subassy.
	21			532732-000		Intercom Station Internal Control
		26		530651		Intercom Internal Control Subassy.
	65			532734-000		Intercom Station Audio Control
		27		530653		Audio Control Subassy.
		28		530654		Audio Control Subassy.
50				532365-000		Hut Structure Assy.
	85			532369-000		Power Distribution Panel
	70			532901		A. C. Temperature Control
	71			532902		Air Conditioner
	72			532903		A. C. Amplifier Control
	73			532900		A. C. Temperature Sensor
	86			532376-000		RFI & Connector Panel
	87			532356-000		Communications J-Box
	90					Hut Lighting
	91			GFE		Hut Telephone TA-312
50	82			536240		A. C. Power Harness
	83			534154-0001		D. C. Power Signal Harness
	84			534153-0001		Com. DC & Signal Harness
	81			532997-000		Basic Hut
	92					Headset, Operator

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ENCODING TABLE

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Enclosure 3

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	01 02		758-5249-001		AN/USC-8(V) Data Modem Set
				769-8261-001		Rack, Wired, DMS
						Distribution Connectors
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4868-001		JJ8 Card - Phase Modulator
			03	762-4868-001		JJ8 Card - Phase Modulator
			04	762-4868-001		JJ8 Card - Phase Modulator
			05	762-5868-001		JJ8 Card - Phase Modulator
			06	762-4868-001		JJ8 Card - Phase Modulator
			07	762-4868-001		JJ8 Card - Phase Modulator
			08	762-5868-001		JJ8 Card - Phase Modulator
			09	762-4868-001		JJ8 Card - Phase Modulator
			10	762-4868-001		JJ8 Card - Phase Modulator
			11	762-4868-001		JJ8 Card - Phase Modulator
			12	762-4868-001		JJ8 Card - Phase Modulator
			13	762-4868-001		JJ8 Card - Phase Modulator
			14	762-4868-001		JJ8 Card - Phase Modulator
			15	762-4868-001		JJ8 Card - Phase Modulator
			16	762-4868-001		JJ8 Card - Phase Modulator
			17	566-2007-004		AV4 Card - Nand Gate
			18	566-2034-005		AU8 Card - NPN-PNP Inverter
			20	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			21	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			22	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			23	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			24	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			25	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			26	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			27	704-5897-001		NZ3 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
		03				Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4916-001		JJ7 Card - Transmit Mixer & Grouping
			03			JP7 Card - Level Control
			04	762-4936-001		JJ9 Card - Input/Output
01	01	03	05			G59 Card - Tone Monitor
			06	762-4920-001		JL5 Card - Decoupler
			07	762-4924-001		JL7 Card - Frame Transition Detector 1
			08	762-4928-001		JL8 Card - Frame Transition Detector 2
			09	762-4924-001		JL7 Card - Frame Transition Detector 1
			10	762-4928-001		JL8 Card - Frame Transition Detector 2
			13	566-2034-005		AU8 Card - NPN-PNP Inverter
			14	566-2134-004		DN3 Card - NOR Gate
			15	566-2179-005		CU8 Card - Power Pulse Former
			16	566-2149-005		BA8 Card - Eight Count
			17	566-2149-005		BA8 Card - Eight Count
			18	566-2007-004		AV4 Card - Nand Gate
			19	566-2007-004		AV4 Card - Nand Gate
			20	566-2179-005		CU8 Card - Power Pulse Former
			21	566-2159-004		CY3 Card - Input Buffer
			22	566-2159-004		CY3 Card - Input Buffer

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	04	23	566-2159-004		CY3 Card - Input Buffer
			24	566-2159-004		CY3 Card - Input Buffer
			25	566-2064-004		DN5 Card - Pedestal Gate
			26	566-2064-004		DN5 Card - Pedestal Gate
			27	566-2064-004		DN5 Card - Pedestal Gate
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			03	762-4940-001		JN2 Card - Receiver Mixer
			05	762-4940-001		JN2 Card - Receiver Mixer
			07	762-4940-001		JN2 Card - Receiver Mixer
			09	762-4940-001		JN2 Card - Receiver Mixer
			11	762-4972-001		JN5 Card - Doppler Tone Translator
			13	762-4972-001		JN5 Card - Doppler Tone Translator
			14	762-4888-001		JK5 Card - Signal Presence 1
			15	762-4888-001		JK5 Card - Signal Presence
			16	762-4892-001		JK7 Card - Signal Presence 2
			17	762-4900-001		JK9 Card - Signal Presence 3
			18	762-4904-001		JL2 Card - Signal Presence 4
			19	762-4932-001		JL9 Card - Doppler VCO
		05	20	762-4956-001		JN3 Card - Operational Amplifier
			21	762-5200-001		JP5 Card - Phase Detector
			22	762-5200-001		JP5 Card - Phase Detector
			23	762-5196-001		JP4 Card - Digital Filter
			24	762-5196-001		JP4 Card - Digital Filter
			25	762-4984-001		JP3 Card - Filter Driver
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4952-001		JN7 Card - Doppler Freq. Synthesizer
			03	762-4944-001		JN4 Card - Doppler Mixer
			04	762-4944-001		JN4 Card - Doppler Mixer
			05	762-4952-001		JN7 Card - Doppler Freq. Synthesizer
			08	762-4968-001		JP2 Card - OSC Self-Check #3
			09	762-4964-001		JN9 Card - OSC Self-Check #2
			10	762-4960-001		JN8 Card - OSC Self-Check #1
			11	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			12	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			13	762-4872-007		JM9 Card - 167.610 & 168.520 kHz osc.
			14	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			15	762-4872-006		JM8 Card - 186.560 & 191.840 kHz osc.
			16	762-4872-005		JM7 Card - 183.040 & 184.800 kHz osc.
			17	762-4872-004		JM5 Card - 179.520 & 181.280 kHz osc.
			18	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			19	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			20	762-4872-003		JM4 Card - 172.480 & 177.760 kHz osc.
			21	762-4872-002		JM3 Card - 176.000 & 250.000 kHz osc.
			22	762-4872-001		JM2 Card - 330.000 & 300.000 kHz osc.
			23	762-4876-001		JK2 Card - Strobe Driver
			24	566-2064-004		DN5 Card - Pedestal Gate
			25	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			26	774-5897-001		NZ3 Card - Multipurpose Flip-Flop

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	06	27	566-2024-005		CU9 Card - Locked Oscillator
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4880-001		JK3 Card - RC Correlator
			03	762-4884-001		JK4 Card - Drive Logic
			04	762-4880-001		JK3 Card - RC Correlator
			05	762-4880-001		JK3 Card - RC Correlator
			06	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			07	762-4880-001		JK3 Card - RC Correlator
			08	762-4880-001		JK3 Card - RC Correlator
			09	762-4884-001		JK4 Card - Drive Logic
			10	762-4880-001		JK3 Card - RC Correlator
			11	762-4880-001		JK3 Card - RC Correlator
			12	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			13	762-4880-001		JK3 Card - RC Correlator
			14	762-4896-001		JK8 Card - Pulse Product Detector
			15	762-4908-001		JL3 Card - Logic Amplifier
			16	762-4896-001		JK8 Card - Pulse Product Detector
			17	762-4880-001		JK3 Card - RC Correlator
			18	762-4884-001		JK4 Card - Drive Logic
			19	762-4880-001		JK3 Card - RC Correlator
			20	762-4880-001		JK3 Card - RC Correlator
			21	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			22	762-4880-001		JK3 Card - RC Correlator
			23	762-4880-001		JK3 Card - RC Correlator
			24	762-4884-001		JK4 Card - Drive Logic
			25	762-4880-001		JK3 Card - RC Correlator
			26	762-4880-001		JK3 Card - RC Correlator
			27	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
01	01	07				Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4880-001		JK3 Card - RC Correlator
			03	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			04	762-4880-001		JK3 Card - RC Correlator
			05	762-4880-001		JK3 Card - RC Correlator
			06	762-4884-001		JK4 Card - Drive Logic
			07	762-4880-001		JK3 Card - RC Correlator
			08	762-4880-001		JK3 Card - RC Correlator
			09	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			10	762-4880-001		JK3 Card - RC Correlator
			11	762-4880-001		JK3 Card - RC Correlator
			12	762-4884-001		JK4 Card - Drive Logic
			13	762-4880-001		JK3 Card - RC Correlator
			17	762-4880-001		JK3 Card - RC Correlator
			18	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			19	762-4880-001		JK3 Card - RC Correlator
			20	762-4880-001		JK3 Card - RC Correlator
			21	762-4884-001		JK4 Card - Drive Logic
			22	762-4880-001		JK3 Card - RC Correlator

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	08	23	762-4880-001		JK3 Card - RC Correlator
			24	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			25	762-4880-001		JK3 Card - RC Correlator
			26	762-4880-001		JK3 Card - RC Correlator
			27	762-4884-001		JK4 Card - Drive Logic
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			03	566-2034-005		AU8 Card - NPN-PNP Inverter
			04	566-2034-005		AU8 Card - NPN-PNP Inverter
			05	566-2034-005		AU8 Card - NPN-PNP Inverter
			12	566-2134-004		DN3 Card - NOR Gate
			13	566-2134-004		DN3 Card - NOR Gate
			14	566-2134-004		DN3 Card - NOR Gate
			15	566-2034-005		AU8 Card - NPN-PNP Inverter
			16	566-2034-005		AU8 Card - NPN-PNP Inverter
			17	566-2007-004		AV4 Card - NAND Gate
			18	566-2007-004		AV4 Card - NAND Gate
			19	566-2134-004		DN3 Card - NOR Gate
			20	566-2134-004		DN3 Card - NOR Gate
01	01	09	21	566-2154-005		AR5 Card - Counter Flip-Flop
			22	566-2154-005		AR5 Card - Counter Flip-Flop
			23	566-2154-005		AR5 Card - Counter Flip-Flop
			24	566-2154-005		AR5 Card - Counter Flip-Flop
			25	566-2154-005		AR5 Card - Counter Flip-Flop
			26	566-2179-005		CU8 Card - Power Pulse Former
			27	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	566-2134-004		DN3 Card - NOR Gate
			03	566-2154-005		AR5 Card - Counter Flip-Flop
			04	566-2154-005		AR5 Card - Counter Flip-Flop
			05	566-2154-005		AR5 Card - Counter Flip-Flop
			06	566-2179-005		CU8 Card - Power Pulse Former
			07	566-2179-005		CU8 Card - Power Pulse Former
			08	566-2007-004		AV4 Card - NAND Gate
			09			DF4 Card - Power Amplifier
			10	566-2007-004		AV4 Card - NAND Gate
			11	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			12	566-2154-005		AR5 Card - Counter Flip-Flop
			13	566-2154-005		AR5 Card - Counter Flip-Flop
			14	566-2154-005		AR5 Card - Counter Flip-Flop
			15	566-2134-004		DN3 Card - NOR Gate
			16	566-2154-005		AR5 Card - Counter Flip-Flop
			17	566-2154-005		AR5 Card - Counter Flip-Flop
			18	566-2154-005		AR5 Card - Counter Flip-Flop
			19	566-2179-005		CU8 Card - Power Pulse Former
			20	762-5189-004		DF3 Card - One Shot (40 μ s)
			21	762-5189-004		DF3 Card - One Shot (100 μ s - 4 ms)
			22	566-2069-005		DF7 Card - Output Buffer

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	10	23	566-2069-005		DF7 Card - Output Buffer
			24	566-2069-005		DF7 Card - Output Buffer
			25	566-2069-005		DF7 Card - Output Buffer
			26	566-2069-005		DF7 Card - Output Buffer
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			03	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			04	566-2007-001		AV4 Card - NAND Gate
			05	762-5189-004		DF3 Card - One Shot (4 ms)
			06	566-2149-005		BA8 Card - Eight Count
			07	566-2149-005		BA8 Card - Eight Count
			08	566-2149-005		BA8 Card - Eight Count
			09	566-2134-004		DN3 Card - NOR Gate
			10	566-2179-005		CU8 Card - Power Pulse Former
			11	566-2034-005		AU8 Card - NPN-PNP Inverter
			12	566-2034-005		AU8 Card - NPN-PNP Inverter
			13	566-2034-005		AU8 Card - NPN-PNP Inverter
			14	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			15	566-2064-004		DN5 Card - Pedestal Gate
			16	566-2007-004		AV4 Card - NAND Gate
			17	566-2034-005		AU8 Card - NPN-PNP Inverter
			18	566-2007-004		AV4 Card - NAND Gate
			19	566-2134-004		DN3 Card - NOR Gate
			20	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			21	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			22	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			23	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			24	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			25	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			26	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			27	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
01	01	11				Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			03	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			04	566-2034-005		AU8 Card - NPN-PNP Inverter
			05	762-5189-002		DF3 Card - One Shot (250 μ s - 2 ms)
			06	566-2134-004		DN3 Card - NOR Gate
			07	566-2179-005		CU8 Card - Power Pulse Former
			08	566-2179-005		CU8 Card - Power Pulse Former
			09	566-2154-005		AR5 Card - Counter Flip-Flop
			10	566-2154-005		AR5 Card - Counter Flip-Flop
			11	566-2007-004		AV4 Card - NAND Gate
			14	566-2034-005		AU8 Card - NPN-PNP Inverter
			15	566-2179-005		CU8 Card - Power Pulse Former
			16	566-2154-005		AR5 Card - Counter Flip-Flop
			17	566-2154-005		AR5 Card - Counter Flip-Flop
			18	566-2154-005		AR5 Card - Counter Flip-Flop

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	12	19	566-2154-005		AR5 Card - Counter Flip-Flop
			20	566-2154-005		AR5 Card - Counter Flip-Flop
			21	566-2154-005		AR5 Card - Counter Flip-Flop
			22	566-2134-004		DN3 Card - NOR Gate
			23	762-5189-004		DF3 Card - One Shot (3.5 μ s - 1.2 ms)
			24	566-2007-004		AV4 Card - NAND Gate
			25	566-2064-004		DN5 Card - Pedestal Gate
			26	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			27	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			05	762-4912-001		JL4 Card - Function Test
			06	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			07	566-2007-004		AV4 Card - NAND Gate
			10	566-2154-005		AR5 Card - Counter Flip-Flop
			11	566-2154-005		AR5 Card - Counter Flip-Flop
			12	566-2154-005		AR5 Card - Counter Flip-Flop
			13	566-2134-004		DN3 Card - NOR Gate
			14	566-2154-005		AR5 Card - Counter Flip-Flop
			15	566-2007-004		AV4 Card - NAND Gate
			16	566-2154-005		AR5 Card - Counter Flip-Flop
			17	566-2007-004		AV4 Card - NAND Gate
			18	566-2149-005		BA8 Card - Eight Count
			19	566-2154-005		AR5 Card - Counter Flip-Flop
			20	566-2154-005		AR5 Card - Counter Flip-Flop
			21	566-2154-005		AR5 Card - Counter Flip-Flop
			22	566-2154-005		AR5 Card - Counter Flip-Flop
			23	566-2154-005		AR5 Card - Counter Flip-Flop
			24	566-2149-005		BA8 Card - Eight Count
			25	566-2179-005		CU8 Card - Power Pulse Former
			26	566-2034-005		AU8 Card - NPN-PNP Inverter
			27	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
		13				DMS Control Panel
			01			Board Attenuator
			02			Board, Tone Grouping
		14				DMS Maintenance Panel
01	02					Cabinet
01	03			762-5202-001		Wiring Fixture
02	01	01		758-5250-001		Data Control C-6706
				769-8262-001		Wired Rack, DC
						Distribution Connectors
						Power Supply
			01	762-9827-901		KH9 Card - Pos. 15VDC Regulator
			02	762-9845-002		KH8 Card - Pos. 6 VDC Regulator
			03	762-9840-002		KH7 Card - Neg. 6 VDC Regulator
			04	762-9840-003		KH5 Card - Neg. 15 VDC Regulator

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
02	01	03	15	762-5157-001		Maintenance Kit
			18	762-5223-001		Adapter, Extender - 30 Pin
			20	762-5220-001		Adapter, Extender - 44 Pin
			22	762-5295-001		Extender, Circuit Board - 30 Pin
			25	762-5298-001		Extender, Circuit Board - 44 Pin
			28			Adapter, Rack/Circuit Board
						Phase Shifter
		04	02	762-3949-001		Card Cage
			04	762-5333-001		MJ1 Card - TX Seq. Ind.
						MJ2 Card - RX Seq. Ind.
		05	01	762-4912-001		Card Cage
			02	566-2007-004		JL4 Card - Function Test
			03	566-2007-004		AV4 Card - NAND Gate
			04	566-2007-004		AV4 Card - NAND Gate
			05	566-2007-004		AV4 Card - NAND Gate
			06	566-2007-004		AV4 Card - NAND Gate
			07	566-2007-004		AV4 Card - NAND Gate
			08	566-2007-004		AV4 Card - NAND Gate
			09	566-2007-004		AV4 Card - NAND Gate
			10	566-2007-004		AV4 Card - NAND Gate
			11	566-2134-004		DN3 Card - NOR Gate
			12	566-2134-004		DN3 Card - NOR Gate
			13	566-2179-005		CU8 Card - Power Pulse Former
			14			DN5 Card - Pedestal Gate
			15			DN5 Card - Pedestal Gate
			16	762-4864-001		NZ3 Card - Multipurpose Flip-Flop
			17	762-4864-001		NZ3 Card - Multipurpose Flip-Flop
			18	566-2149-004		BA8 Card - Eight Count
			19	566-2149-005		BA8 Card - Eight Count
			20	566-2034-005		AU8 Card - NPN-PNP Inverter
			21	566-2034-005		AU8 Card - NPN-PNP Inverter
			22	566-2007-004		AV4 Card - NAND Gate
			24	566-2034-005		AU8 Card - NPN-PNP Inverter
			25	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			26	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			27	566-2179-005		CU8 Card - Power Pulse Former
			28	762-4920-001		JL5 Card - Decoupler
02	01	06	01	762-4912-001		Card Cage
			02	566-2007-004		JL4 Card - Function Test
			03	566-2007-004		AV4 Card - NAND Gate
			04	566-2007-004		AV4 Card - NAND Gate
			05	566-2007-004		AV4 Card - NAND Gate
			06	566-2134-004		DN3 Card - NOR Gate
			07	566-2007-004		AV4 Card - NAND Gate
			08	566-2007-004		AV4 Card - NAND Gate
			09	566-2007-004		AV4 Card - NAND Gate
			10	566-2007-004		AV4 Card - NAND Gate
			11	566-2134-004		DN3 Card - NOR Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
02	01	07	12	566-2134-004		DN3 Card - NOR Gate
			13	566-2007-004		AV4 Card - NAND Gate
			14	566-2007-004		AV4 Card - NAND Gate
			15	566-2007-004		AV4 Card - NAND Gate
			16	566-2034-005		AU8 Card - NPN-PNP Inverter
			18	566-2154-005		AR5 Card - Counter Flip-Flop
			19	566-2154-005		AR5 Card - Counter Flip-Flop
			20	566-2154-005		AR5 Card - Counter Flip-Flop
			23	566-2179-005		CU8 Card - Power Pulse Former
			24	566-2007-004		AV4 Card - NAND Gate
			25	566-2034-005		AU8 Card - NPN-PNP Inverter
			26	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			27	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			28	762-7920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	566-2179-005		CU8 Card - Power Pulse Former
			03	566-2154-005		AR5 Card - Counter Flip-Flop
			04	566-2154-005		AR5 Card - Counter Flip-Flop
			05	566-2154-005		AR5 Card - Counter Flip-Flop
			06	566-2034-005		AU8 Card - NPN-PNP Inverter
			07	566-2134-004		DN3 Card - NOR Gate
			08	566-2134-004		DN3 Card - NOR Gate
			09	566-2007-004		AV4 Card - NAND Gate
			10	566-2007-004		AV4 Card - NAND Gate
			11	566-2007-004		AV4 Card - NAND Gate
			12	566-2007-004		AV4 Card - NAND Gate
			13	566-2007-004		AV4 Card - NAND Gate
			14	566-2007-004		AV4 Card - NAND Gate
			15	566-2034-005		AU8 Card - NPN-PNP Inverter
			16	566-2007-004		AV4 Card - NAND Gate
			17	566-2007-004		AV4 Card - NAND Gate
			20	566-2179-005		CU8 Card - Power Pulse Former
			21	566-2034-005		AU8 Card - NPN-PNP Inverter
			22	566-2007-004		AV4 Card - NAND Gate
			23	566-2007-004		AV4 Card - NAND Gate
			24	566-2007-004		AV4 Card - NAND Gate
			25	566-2154-005		AR5 Card - Counter Flip-Flop
			26	566-2154-005		AR5 Card - Counter Flip-Flop
			27	566-2154-005		AR5 Card - Counter Flip-Flop
			28	762-4920-001		JL5 Card - Decoupler
02	01	08				Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	566-2007-004		AV4 Card - NAND Gate
			03	566-2007-004		AV4 Card - NAND Gate
			04	566-2007-004		AV4 Card - NAND Gate
			05	566-2164-005		CV4 Card - Exclusive OR
			06	566-2134-004		DN3 Card - NOR Gate
			07	566-2007-004		AV4 Card - NAND Gate
			08	566-2134-004		DN3 Card - NOR Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
02	01	08	01	762-4912-001		Card Cage
			02	566-2007-004		JL4 Card - Function Test
			03	566-2007-004		AV4 Card - NAND Gate
			04	566-2007-004		AV4 Card - NAND Gate
			05	566-2164-005		AV4 Card - NAND Gate
			06	566-2134-004		CV4 Card - Exclusive OR
			07	566-2007-004		DN3 Card - NOR Gate
			08	566-2134-004		AV4 Card - NAND Gate
			09	566-2134-004		DN3 Card - NOR Gate
			10	566-2034-005		DN3 Card - NOR Gate
			11	566-2007-004		AU8 Card - NPN-PNP Inverter
			12	566-2164-005		AV4 Card - NAND Gate
			28	762-4920-001		CV4 Card - Exclusive OR
						JL5 Card - Decoupler
02	01	09	01	762-4912-001		Card Cage
			02	566-2149-005		JL4 Card - Function Test
			03	566-2149-005		BA8 Card - Eight Count
			04	566-2149-005		BA8 Card - Eight Count
			05			BA8 Card - Eight Count
			06	566-2134-004		AU8 Card - NPN-PNP Inverter
			07	566-2134-004		DN3 Card - NOR Gate
			08	566-2134-004		DN3 Card - NOR Gate
			09	566-2007-004		DN3 Card - NOR Gate
			10	566-2007-004		AV4 Card - NAND Gate
			11	566-2007-004		AV4 Card - NAND Gate
			12	566-2007-004		AV4 Card - NAND Gate
			13	566-2007-004		AV4 Card - NAND Gate
			14	566-2007-004		AV4 Card - NAND Gate
			15	566-2007-004		AV4 Card - NAND Gate
			16	566-2034-005		AU8 Card - NPN-PNP Inverter
			17	566-2134-004		DN3 Card - NOR Gate
			18	566-2007-004		AV4 Card - NAND Gate
			19	566-2007-004		AV4 Card - NAND Gate
			20	566-2134-004		DN3 Card - NOR Gate
			21	566-2007-004		AV4 Card - NAND Gate
			22	566-2007-004		AV4 Card - NAND Gate
			23	566-2134-004		DN3 Card - NOR Gate
			24			CV4 Card - Exclusive OR
			25	566-2007-004		AV4 Card - NAND Gate
			26	566-2134-004		DN3 Card - NOR Gate
			27	566-2134-004		DN3 Card - NOR Gate
			28	762-4920-001		JL5 Card - Decoupler
02	01	10	01	762-4912-001		Card Cage
			02	566-2034-005		JL4 Card - Function Test
			03	566-2134-004		AU8 Card - NPN-PNP Inverter
			04	566-2179-005		DN3 Card - NOR Gate
			05	762-5189-004		CU8 Card - Power Pulse Former
			06	566-2007-004		DF5 Card - One shot (10 μ s - 42 ms)
			07	566-2007-004		AV4 Card - NAND Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
02	01	11	08	566-2134-004		DN3 Card - NOR Gate
			09	566-2134-004		DN3 Card - NOR Gate
			10	566-2134-004		DN3 Card - NOR Gate
			11	566-2007-004		AV4 Card - NAND Gate
			12	566-2007-004		AV4 Card - NAND Gate
			17	566-2007-004		AV4 Card - NAND Gate
			18	566-2149-005		BA8 Card - Eight Count
			19	566-2149-005		BA8 Card - Eight Count
			20	566-2007-004		AV4 Card - NAND Gate
			21	566-2034-005		AU8 Card - NPN-PNP Inverter
			22	566-2007-004		AV4 Card - NAND Gate
			23	566-2134-004		DN3 Card - NOR Gate
			24	566-2134-004		DN3 Card - NOR Gate
			25	566-2007-004		AV4 Card - NAND Gate
			26	566-2007-004		AV4 Card - NAND Gate
			27	566-2007-004		AV4 Card - NAND Gate
			28	762-4920-001		JL5 Card - Decoupler
						Card Cage
			01	762-4912-001		JL4 Card - Function Test
			02	762-5189-004		DF3 Card - One Shot (40 μ s - 11 ms)
			03	566-2179-005		CU8 Card - Power Pulse Former
			04	762-5189-004		DF3 Card - One shot (70 μ s - 1.2 ms)
			05	762-5189-004		DF3 Card - One shot (40 μ s - 1.6 ms)
			06	566-2179-005		CU8 Card - Power Pulse Former
			07	762-5189-004		DF3 Card - One shot (40 μ s - 6.6 ms)
			08	566-2179-005		CU8 Card - Power Pulse Former
			09	762-2179-004		DF3 Card - One Shot (40 μ s - 700 μ s)
			10			GN7 Card - Shorting Card
			11			GN7 Card - Shorting Card
			12	566-2134-004		DN3 Card - NOR Gate
			13	566-2007-004		AV4 Card - NAND Gate
			14	566-2007-004		AV4 Card - NAND Gate
			15	566-2034-005		AU8 Card - NPN-PNP Inverter
			16	566-2179-005		CU8 Card - Power Pulse Former
			17	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			18	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			19	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			20	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			21	566-2134-004		DN3 Card - NOR Gate
			22	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			23	762-4894-001		JJ5 Card - Multipurpose Flip-Flop
			24	566-2134-004		DN3 Card - NOR Gate
			25	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			26	762-4864-001		JJ5 Card - Multipurpose Flip-Flop
			27	566-2134-004		DN3 Card - NOR Gate
			28	762-4920-001		JL5 Card - Decoupler
02	01	12				Card Cage
			05	762-4912-001		JL4 Card - Function Test
			06	566-2034-005		AU8 Card - NPN-PNP Inverter
			07	566-2007-004		AV4 Card - NAND Gate
			08	566-2134-004		DN3 Card - NOR Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
03			09	566-2007-004		AV4 Card - NAND Gate
			10	566-2034-005		AU8 Card - NPN-PNP Inverter
			11	566-2179-005		CU8 Card - Power Pulse Former
			12	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			13	774-5897-001		NZ3 Card - Multipurpose Flip-Flop
			15	566-2064-004		DN5 Card - Pedestal Gate
			16	566-2064-004		DN5 Card - Pedestal Gate
			17	566-2134-001		DN3 Card - NOR Gate
			19	566-2074-004		FY4 Card - Busy Detector
			20	566-2149-005		BA8 Card - Eight Count
			22	566-2007-004		AV4 Card - NAND Gate
			23	566-2149-005		BA8 Card - Eight Count
			24	566-2134-004		DN3 Card - NOR Gate
			25	566-2007-004		AV4 Card - NAND Gate
			26	566-2034-005		AU8 Card - NPN-PNP Inverter
			27	566-2007-004		AV4 Card - NAND Gate
			28	762-4920-001		JL5 Card - Decoupler
		13		762-3376-001		DC Control Panel
		14	01			DC Maintenance Panel 24V Power Supply
	02					Cabinet
	03					Wiring Fixture
	01			762-3268-001		Operator Control Rack
		01		762-3448-002		Air Conditioner Control
		02				C6659/GSA-78(V) AC Control
		03				AM4358/GSA-78(V) AC Control Amp.
		04				P/O AN/GSA-78(V) AC Control Sensor
						Wired Panel
	02					ID-1314/TYA-17 Alarm-Monitor
	03					C-6700/U Data Indicator Control
	04					Address Control C6701/U
		01		762-4912-001		JL4 Card - Function Test
		02		762-4948-001		JP8 Card - Address Output Amplifier
		03		566-2007-001		AV4 Card - NAND Gate
		04		566-2164-005		CV4 Card - Exclusive OR
		05		566-2134-004		DN3 Card - NOR Gate
		06		566-2134-004		DN3 Card - NOR Gate
		07		566-2007-001		AV4 Card - NAND Gate
		08		762-5189-004		DF3 Card - One Shot (10 μ s - 42 ms)
		09		762-5189-004		DF3 Card - One Shot (40 μ s - 1.6 ms)
		10		566-2179-005		CU8 Card - Power Pulse Former
		11		566-2149-005		BA8 Card - Eight Count
		12		566-2154-005		AR5 Card - Counter Flip-Flop
		13		566-2154-005		AR5 Card - Counter Flip-Flop
		14		566-2134-004		DN3 Card - NOR Gate
		15		566-2134-004		DN3 Card - NOR Gate
		16		566-2007-001		AV4 Card - NAND Gate
		17		566-2007-001		AV4 Card - NAND Gate

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
03	05	18		566-2007-001		AV4 Card - NAND Gate
		19				Address Selector Extender Board
		20		762-4920-001		JL5 Card - Decoupler
		01				Address Indicator Control C-6702/U
		02		758-5349-001		Address Selector
		03		758-5349-001		Address Selector
		04		758-5349-001		Address Selector
		05		758-5349-001		Address Selector
		06		758-5349-001		Address Selector
		07		758-5349-001		Address Selector
		08		758-5349-001		Address Selector
		09		758-5349-001		Address Selector
		10		758-5349-001		Address Selector
	06			758-5231-001		Keyer Amplifier KY-580/TYA-17
		01		762-7313-001		JX3 Card - Keyer
		02		762-7310-001		JX2 Card - Oscillator - Amplifier
		03		762-3382-001		KD7 Card - Relay Control
		04		762-3382-001		KD7 Card - Relay Control
		05		762-3949-001		LK2 Card - Relay/Driver
		06		528-0052-005		RF Isolation Amplifier
		07				Wired Chassis
	07					Freq. Standard 0-1107/SRC-16
		01		545-6556-005		Oscillator
		02		545-6554-004		1 MHz Divider
		03		545-6555-004		100 kHz Divider
		04		545-6557-005		Regulator
		05		547-4816-005		Elec. Equip. Chassis
	08					Stowage
04						Central Distribution Rack
						Central Distribution Frame
						Temperature Control
						Stowage Drawer
05						Stowage Drawer
						Work Bench
						Air Conditioner, HD-706/GSA-78(V)
						Air Conditioner, HD-706/GSA-78(V)
06						Elec. Equip. Shelter, S-353/TYA-17
						Data and Control Entry Panel
						Power and Signal Entry Panel
						AC Power Junction
						Maintenance Kit
						Maintenance Light
						Special Purpose Tools

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
09		03				Cables Plus Adapters
		04				Cables Plus Adapters
	05					Power Control
	06					General Light Assembly
	07					General Light Assembly
	08					General Light Assembly
	09					General Light Assembly
	10					Hinged Shelf
		01				Work Light Assembly
		02				Work Light Assembly
	11					Telephone Mounting
		01				Telephone Set TA-312/PT
	12					General Light Assembly
	01					Test Console
						AN/SSM-4A
		01				TS-1923A/SSM-4
			01			Tester W/O Case
						01 Card Cage
						01-01 JL4 Card - Function Test
						01-02 JL4 Card - Function Test
						01-05 KT7 Card - PPD Generator
						01-06 KT5 Card - Test Pattern Gen.
						01-07 KT8 Card - Squaring Amp.
						01-08 KJ4 Card - POS/NEG Pulse Driver
						01-09 JJ5 Card - Multipurpose Flip-Flop
						01-10 DN3 Card - NOR Gate
						01-11 DB2 Card - Inverter
						01-12 DA5 Card - NAND Gate
						01-13 GM8 Card - Voltage Control
						01-14 DN3 Card - NOR Gate
						01-15 GL8 Card - Spec. Funct. Gen.
						01-16 DZ7 Card - Phase Shifter
						01-17 GT4 Card - Multivibrator
						01-18 GL9 Card - Decade Resistor
						01-19 GM2 Card - Special Loads
						02 Test Connectors
						03 Program Switch
						04 Panel Assembly
						04-01 Marginal Test SW/IND
						04-02 Normal Test SW/IND
						04-03 Signal Gen. 1 & 2 SW/IND
						04-04 Mon in/Mon out SW/IND
						04-05 Ready Temp. SW/IND
						04-06 AC Power SW/IND
						05 Test Position Switch
						06 Relay Mounting Bracket
						07 Relay Board Assembly

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
09	01	02	01			Power Supply PP-37MA/SSM-4 Power Supply W/O Case 01 Pattern Gen Power Supply 01-01 Pattern Gen Regulator 02 Test Positive Power Supply 02-01 Test Positive Regulator 03 Test Negative Power Supply 03-01 Test Negative Regulator 04 Protective Circuit Card Oscilloscope AN/USM-218 Oscilloscope OS-172(P)/USM (TEK 647) PreAmp AM-4455/U (TEK 10A2) Sweep Delay Gen TD-793/U (TEK11B2) Probe Kit (TEK P6008) (10A2) Probe Kit (TEK P6008) (10A2) Probe Kit (TEK P6008) (10A2) Voltmeter, Electronic, ME-30A/U Voltmeter, Electronic, ME313/U Voltmeter, Electronic, ME 314/U Sig. Generator SG-685/U Sig. Generator SG-685/U Digital Electronic Counter CP-843(P) Time Interval Unit TD-785/U Multimeter AN/USM-123A Impedance Matching Network CU-1498/U General Light Assembly Work Light Assembly
	02	01				
		02				
		03				
		04				
		05				
		06				
	03					
	04					
	05					
	06					
	07					
	08					
		01				
	09					
	10					
	11					
	12					

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	01	01				Revvr-Xmtr OA-4829/SRC-23(V) Elec. Equip Cabinet CY-4725/SRC-23(V) CKT Card - Thermal Alarm Control
	02	01 02 03 04 05				Transmitter Control C-4785/SRC-23(V) Electrical Equipment Chassis Power Supply Transmitter Relay Assembly Compression Amplifier Compression Amplifier
	03	01 02 03 04 05 06 07				Receiver Control C-4784/SRC-23(V) Electrical Equipment Chassis Power Supply Receiver Relay Assembly Network Squelch Network Squelch RF-BFO Oscillator Receiver Overload Protector
	04	01 02 03 04 05				Frequency Standard O-1107/SRC-16 Oscillator 1 MHz Divider 100 kHz Divider Regulator Electrical Equipment Chassis
	05	01 02 03 04 05 06				Radio Receiver R-1361/SRC-23(V) RF Tuner MC Frequency Stabilizer Frequency Multiplier Frequency Divider-Stabilizer LSB Amplifier-Mixer Receiver Gain Control
		07 08 09 10				USB Amplifier Mixer Audio Frequency Amplifier Power Supply (AC) Electrical Equipment Chassis
	06	01 02 03 04 05 06 07 08 09				Radio Xmtr T-1004/SRC-23(V) RF Tuner MC Frequency Stabilizer Frequency Multiplier Frequency Divider-Stabilizer Transmitter Gain Control Balanced Modulator Electronic Control Amplifier Power Supply (AC) Electrical Equipment Chassis

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	07	01 02 03 04				Radio Frequency Amplifier RF Amplifier Electronic Control Amplifier Relay Assembly Chassis and Power Supply
02						Rcvr-Xmtr OA-4829/SRC-23(V) Note: Use Unit 01 Breakdown for Unit 02.
03	01	01 02 03 04 05				Antenna Coupler Rack Monitor-Oscilloscope IP-803/U Power Supply H.V. Power Supply Electronic Control Amplifier Sweep Generator Electrical Equipment Chassis
	02	01 02 03				Bandpass Filter F-1039/U Electronic Control Amplifier Digital-Analog Converter Power Supply
	03	01 02 03				Bandpass Filter Electronic Control Amplifier Digital-Analog Converter Power Supply
	04	01 02 03 04 05 06 07 08 09 10 11				Antenna Coupler CU-1170/SRC-16 Electronic Control Amplifier Discriminator, Loading-Phasing Antenna Coupler Control Electronic Control Amplifier Phasing Discriminator Power Supply Coupler Servo Control RF Filter Trap Assembly Tank Assembly No. 1 Tank Assembly No. 2
	05					Antenna Coupler CU-1170/SRC-16 Note: Use Assy 04 Breakdown for Assy 05.
	06	01 02 03 04 05 06 07				Antenna Coupler CU1169/SRC-16 Electronic Control Amplifier Loading-Phasing Discriminator Antenna Coupler Control Electronic Control Amplifier Phasing Discriminator Power Supply Coupler Servo Control

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
03	06	08				RF Filter
		09				Tank Assembly No. 1
		10				Tank Assembly No. 2
		07				Antenna Coupler CU-1169/SRC-16 Note: Use Assy 06 Breakdown for Assy 07.
04		08				Electrical Dummy Load DA-173/GRM-10
		09				Receive RF Relay
		10				Power Distribution Assembly
		11				Temperature Control
		01				Control Console
		02				Central Distribution Frame
						Radio Control C-6703/TYA-19
		01				KD9 Card - Microphone Amplifier
		03				KD7 Card - Control Relay
		04				KD7 Card - Control Relay
		05				KD7 Card - Control Relay
		06				KD7 Card - Control Relay
		07				KD7 Card - Control Relay
		11				KD7 Card - Control Relay
		12				KD7 Card - Control Relay
		17				Wired Cage
		03				Data Converter
		01				JX4 Card - Selective Amplifier
		02				JX5 Card - Output Discriminator
		03				JX4 Card - Selective Amplifier
		04				JX5 Card - Output Discriminator
		05				JX4 Card - Selective Amplifier
		06				JX5 Card - Output Discriminator
		07				JX4 Card - Selective Amplifier
		08				JX5 Card - Output Discriminator
		09				JX4 Card - Selective Amplifier
		10				JX5 Card - Output Discriminator
		13				JX7 Card - Switching Data Hub
		14				JX7 Card - Switching Data Hub
		15				JX7 Card - Switching Data Hub
		16				JX7 Card - Switching Data Hub
		18				KD8 Card - Summary Alarm
		19				Wired Cage
04	04					Amplifier Assy AM-4381/TYA-19
		01				Audio Frequency Amplifier
		02				Audio Frequency Amplifier
		03				Audio Frequency Amplifier
		04				Audio Frequency Amplifier
		05				Audio Frequency Amplifier
		06				RF Isolation Amplifier
		07				RF Isolation Amplifier
		08				RF Isolation Amplifier

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
04	05	09				RF Isolation Amplifier
		10				Wired Chassis
						Power Supply Set OA-7633/TYA-19
		01				Power Supply
		02				Power Supply
		03				Power Supply
		04				KH4 Card - Alarm Detector
		05				KD7 Card - Control Relay
	06	06				Speaker Amplifier
		07				Audio Frequency Amplifier
		08				Wired Chassis
						Alarm - Monitor ID-1315/TYA-19
		07				Xmtr Control-Ind. C-6704/SRC-23(V)
		07	01			Freq. Select. Cont. C-4783/SRC-23(V)
		08				Rx Control-Ind. C-6705/SRC-23(V)
			01			Freq. Select. Cont. C-4783/SRC-23(V)
	09					Xmtr Control-Ind. C-6704/SRC-23(V)
		01				Freq. Select. Cont. C-4783/SRC-23(V)
	10					Rx Control-Ind. C-6705/SRC-23(V)
		01				Freq. Select. Cont. C-4783/SRC-23(V)
	11					AF-RF Monitor ID-1145/SRC-23(V)
	12					Control-Monitor C-6698/TYA-19
	13					Radio Freq. Test Cont. C-6699/TYA-19
	14					Air Conditioner Control
		01				Air Cond. Cont. C-6659/GSA-78(V)
		02				A/C Cont. Amp. AM-4358/GSA-78(V)
		03				A/C Cont. Sensor P/O AN/GSA-78(V)
		04				Wired Panel
	15					Telephone Jack Assy, TA-662/TYA-19
		01				KD7 Card - Control Relay
		02				KD7 Card - Control Relay
		03				KD7 Card - Control Relay
		04				Wired Panel
	16					Speaker Panel
	17					Freq. Stand. Patch. Panel SB-2542
	18					Telephone Mounting
	19					Radio Test Set TS-1913/SRC-16
		01				Electrical Equipment Chassis
		02				Power Supply
		03				Amplifier Mixer
		04				Audio Frequency Amplifier
	20					Signal Comparator CM-270/SRC-16
		01				Frequency Multiplier Comparator
		02				RF Isolation Amplifier
		03				Chassis and Power Supply
		04				RF Isolation Amplifier
05	21					Stowage Console
						Work Bench

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
06						Air Conditioner HD-706/GSA-78(V)
07						Air Conditioner HD-706/GSA-78(V)
08						Elect. Equip. Shelter S-354
	01					Signal Entry Panel
	02					Power and RF Entry Panel
	03					Power Junction, A/C
	04					Maintenance Light
	05					Power Control
	06					General Light Assembly
	07					General Light Assembly
	08					General Light Assembly
	09					General Light Assembly
	10					Work Light Assembly
	11					Work Light Assembly
09	01	01				Antenna AS-1310/TYQ-3
						Photoelectric Control Unit
						Photoelectric Head
	02					Matching Transformer (179R-1)
	03					Obstruction Light Assembly
	04					RF Transfer Switch
	05					Stowage Kit
		01				Transit Case No. 1
		02				Transit Case No. 2
		03				Transit Case No. 3
		04				Transit Case No. 4
		05				Transit Case No. 5
		06				Transit Case No. 6
		07				Pallet Assembly
10						Antenna AS-1310/TYQ-3
						Note: Use Unit 09 Breakdown for Unit 10.

Position Identity			Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA Mod			
01	01	01-12	AN/TYA-20		Computability Computer Group
			7046100-00	A1	Computer, Digital Data (CP-808)
			7046379-05	AlA1	Converter, Digital-Digital (I/O Chassis)
			7046307-00	AlA1A1	Capacitor Assy.
			"	A2	"
			"	A3	"
			"	A4	"
			"	A5	"
			"	A6	"
			"	A7	"
			"	A8	"
			"	A9	"
			"	A10	"
			"	A11	"
			"	A12	"
	02	01-12	7046379-00	AlA2	Converter, Digital-Digital (I/O Chassis)
			7046307-00	AlA2A1-A12	Capacitor Assy. (Same as AlA1A1-A12)
			7046379-05	AlA3	Converter, Digital-Digital (I/O Chassis)
			7046307-00	AlA3A1-A12	Capacitor Assy. (Same as AlA1A1-A12)
			7046379-06	AlA4	Converter, Digital-Digital (I/O Chassis)
02	03	01-12	7046307-00	AlA4A1	Capacitor Assy.
			7046379-02	AlA5	Converter, Digital-Digital (Control & Arith.)
			7046307-00	AlA5A1-A12	Capacitor Assy. (Same as AlA1A1-A12)
			7046379-03	AlA6	Converter, Digital-Digital (Control & Arith.)
			7046307-00	AlA6A1-A12	Capacitor Assy. (Same as AlA1A1-A12)
			7046379-04	AlA7	Converter, Digital-Digital (Control & Arith.)
			7046307-00	AlA7A1-A12	Capacitor Assy. (Same as AlA1A1-A12)
			7046115-00	AlA8	Film Memory Unit (Control & Bootstrap)
			7046114-00	AlA8A1	Film Memory Stack

EQUIPMENT BREAKDOWN FOR: AN/TYA-20

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
01	09	01 02 03 05		7046380-00	ALA9	Core Memory Unit Resistor Assy. Regulator Voltage Assy. Core Memory Stack Resistor Assy.
				7046345-00	ALA9A1	
				7046298-00	ALA9A2	
				7046443-00	ALA9A3	
				7046347-00	ALA9A5	
	10				ALA10	Same as ALA9
					ALA11	
					ALA12	
					ALA13	
	11 12 13 14				ALA14	Control, Indicator Control Panel (Front)
02	11 12	01		7046125-00	A2	Power Supply (PP-4892) Terminal Board Terminal Board
				7046140-00	A2A11	
				7046140-00	A2A12	
03	01 02			7050900-00	A3	Console I/O (OJ-65)(1538) Hood Assy.
				7050913-00	A3A1	
				7050904-00	A3A2	
	03	01 02 03		7050931-00	A3A2A1	Logic Chassis Assy. Converter (CV-2423) Control, Indicator Capacitor-Resistor Assy.
				7050940-00	A3A2A2	
				7051040-00	A3A2A3	
				7050903-00	A3A3	
	03	01 02		7051044-00	A3A3A1	Reader Perforator (FP-170) Reader, Tape Perforator (PUNCH) (RO-348) Perforator, Tape Resistor Assy.
				7050952-00	A3A3A2	
				BRPE11	A3A3A2A1	
				7051045-00	A3A3A2A2	

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
03	04 05 06 07 08			7050916-00 7050920-00 7050973-00 MOD-311 PS-64-162-750	A3A4 A3A5 A3A6 A3A7	Fan Assy. Wiring Harness Power Supply Printer (Kleinschmidt) (MX7972) Freq. Converter
04	01	01		7050630-00 7050631-00 7050633-00	A4 A4A1 A4A1A1	Buffer Assy. (CV-2368) Chassis Electrical Equipment Panel, Mounting
05				7050760-00	A5	Cabinet Assy., Electrical
06					A6	Panel Assy., Connector
07				705716-00	A7	Connector, Electrical Assy.
08				7050705-00	A8	Adaptor Assy.
09				7050680-00	A9	Control Box Assy.
10	01	02		TSEC/KG-22 TSEC-KDG-8		Cryptographic Unit (GFE)

Unit	Position Identity			Part Number	Reference Symbol	Description/Nomenclature
	Assy	SA	Mod			
50	81			HD-706/GSA-78 AM-4358/GSA-78		Hut Structure Assy.
	71					Basic Hut
	72					Air-Conditioner
	73					Air-Conditioner Control Amplifier
	70					Air-Conditioner Temperature Sensor
	85			TA-312/PT		Air-Conditioner Temperature Control
	86					Power Distribution Box
	87					RFI Filter, Connector Panel
	88					Telephone Ring Box
	90					Fire Fighting Equipment
	91					Hut Lighting
	92					Hut Telephone
						Data Cable

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ENCODING TABLE

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EQUIPMENT BREAKDOWN FOR: AN/TPS-32

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
01	01 02 03	01		137000-1	1	PS Set OP-64	X2
					1A1	Panel, SB 3475	X2
				138007-1	1A2	Cont - Ind C8511	X2
					1A2A1	Elect. Control Box	6110-932-1987
					1A3	Panel, SB 3474	
					1A3A1	Power Supply	5840-351-4646
					1A3A2	Power Supply	5840-402-2893
					1A3A3	Power Supply	5840-351-4653
					1A3A4	Power Supply	5840-402-2902
					1A3A5	Power Supply	5840-402-2894
					1A3A6	Power Supply	5840-402-2908
					1A3A7	Power Supply	5840-402-2907
					1A3A8	Regulator Assembly	6110-449-2800
					1A3A9	Sensor, Temp.	5840-187-0356
				145504-1	1A3A10	Amp. Assembly	4130-932-1986
					1A5		
					1A5A1	Control Assy.	X2
02	01 02	01 02 03			1A5A2	Power Supply	5840-402-2892
					1A5A3	Control Assembly	5840-406-7897
	03	01 02 03		137002-1	2	Computer CP 1020	5840-197-2854
				137404-1	2A1	Panel Control	
				137445-1	2A2	Detector Assembly	
	05	01 02 03		137406-1	2A2A1	Detector No. 1	
				137415-1	2A2A2	Detector No. 2	
				137416-1	2A2A3	Detector No. 3	
		01 02 03		137446-1	2A3	Computer Assembly	
				137426-1	2A3A1	Computer No. 1	
				137427-1	2A3A2	Computer No. 2	
	05	01 02 03 04 05		137428-1	2A3A3	Computer No. 3	
				137460-1	2A3A4	Discrete Ckts	
				147417-1	2A5	Regulator, Volt	
		01 02 03 04 05			2A5A1	Regulator Assembly	6110-488-9364
					2A5A2	Regulator Assembly	6110-488-9364
					2A5A3	Regulator Assembly	6110-488-9364
					2A5A4	Regulator Assembly	6110-488-9364
					2A5A5	Regulator Assembly	6110-488-9364

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN	
Unit	Assy	SA	MOD					
02	05	06			2A5A6	Regulator Assembly	6110-488-9364	
		07			2A5A7	Regulator Assembly	6110-488-9364	
		08			2A5A8	Regulator Assembly	6110-488-9364	
		09			2A5A9	Regulator Assembly	6110-488-9364	
		10			2A5A10	Regulator Assembly	6110-488-9364	
		11			2A5A11	Regulator Assembly	6110-488-9364	
		12			2A5A12	Regulator Assembly	6110-488-9364	
		13			2A5A13	Regulator Assembly	6110-488-9364	
		14			2A5A14	Regulator Assembly	6110-488-9364	
		15			2A5A15	Regulator Assembly	6110-488-9364	
		16			2A5A16	Ref. Volt Assembly	6110-193-1936	
		17			2A5A17	Regulator Assembly	6110-471-9423	
		18			2A5A18	Regulator Assembly	6110-471-9423	
		19			2A5A19	Regulator Assembly	6110-488-6306	
		21			2A5A21	Regulator Assembly	6110-489-1177	
		22			2A5A22	Regulator Assembly	6110-489-1177	
		24			2A5A24	Regulator Assembly	6110-471-9422	
		06				2A6	Core Memory	5840-230-5367
			01			2A6A1	Current Source	5895-451-3560
			02			2A6A2	Timing Control	5840-187-0301
			03			2A6A3	Driver Switch	5840-187-0330
			04			2A6A4	Driver Switch	5840-187-0330
			05			2A6A5	Driver Switch	5840-187-0330
			06			2A6A6	Driver Switch	5840-187-0330
		07			2A6A7	Driver Switch	5840-171-0361	
		08			2A6A8	Driver Switch	5840-171-0361	
	09			2A6A9	Driver Switch	5840-171-0361		
	10			2A6A10	Driver Switch	5840-171-0361		
	14			2A6A14	Stack Assembly	5840-405-5667		
	16			2A6A16	Data Channel	5840-187-0360		
	17			2A6A17	Data Channel	5840-171-0361		
	18			2A6A18	Data Channel	5840-171-0361		
	19			2A6A19	Data Channel	5840-171-0361		
	20			2A6A20	Data Channel	5840-171-0361		
	21			2A6A21	Data Channel	5840-171-0361		
	22			2A6A22	Data Channel	5840-171-0361		
	23			2A6A23	Data Channel	5840-171-0361		
	24			2A6A24	Data Channel	5840-171-0361		
	25			2A6A25	Data Channel	5840-171-0361		
	26			2A6A26	Data Channel	5840-171-0361		
					41001262-001			
					41002227-3			

Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
02	07	01			2A7	Core Memory	5840-230-5357
		02			2A7A1	Interface Logic	5840-187-0278
		04			2A7A2	Timing Control	5840-187-0300
		05			2A7A4	Data Channel	5840-187-0356
		06			2A7A5	Data Channel	5840-187-0356
		07			2A7A6	Stack Assembly	5840-137-3550
		08			2A7A7	Drive Switch	5840-187-0351
		09			2A7A8	Sink Switch	5840-187-0312
					2A7A9	Drive Switch	5840-187-0351
	08 10 11				2A8	Power Supply	5840-402-2891
				138010-1	2A10 2A11	Power Supply Data Channel	5840-351-4655 5840-187-0356
03	01 02				3	Computer CP-1021	5840-491-7726
					3A1	Panel	
					3A2	MTDS IFF	
					3A2A1	Interface Assembly	
		01			3A2A2	IFF No. 1	
		02			3A2A3	IFF No. 2	
		03			3A2A4	Discrete Circuits	
		04			3A2A4	IFF No. 3	
		05			3A3	Programmer	
	03	01			3A3A1	Programmer No. 1	
		02			3A3A2	Programmer No. 2	
	09 10	03			3A3A3	Programmer No. 3	
		04			3A3A4	Discrete Circuits	
					3A9	Synchro CV 2729	5990-421-5135
					3A10	Synthesizer	
		01			3A10A1	Generator Assembly	5840-193-9569
		02			3A10A2	Generator Assembly	5840-224-2023
		03			3A10A3	Generator Assembly	5840-224-2023
		04			3A10A4	Multiplier Assembly	5840-471-0531
		05			3A10A5	Generator Assembly	5840-193-9568
		06			3A10A6	Generator Assembly	5840-350-9951
		07			3A10A7	Generator Assembly	5840-225-1451
		08			3A10A8	Mixer Assembly	5840-471-0533
		09			3A10A9	Generator Assembly	5840-224-2034
		10			3A10A10	Generator Assembly	5840-224-2035
		11			3A10A11	Generator Assembly	5840-224-2043

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
03	10	12		137518-4	3A10A12	Generator Assembly	5840-225-1452
		13		137518-5	3A10A13	Generator Assembly	5840-225-1453
		14		137518-6	3A10A14	Generator Assembly	5840-193-9549
		15		137518-16	3A10A15	Generator Assembly	5840-224-2012
		16		137518-17	3A10A16	Generator Assembly	5840-224-2014
		18		137518-7	3A10A18	Generator Assembly	5840-193-9557
		19		137518-8	3A10A19	Generator Assembly	5840-193-9558
		20		137518-9	3A10A20	Generator Assembly	5840-193-9564
				3A11	Multiplexer TD 985		
				3A11A1	Generator Assembly		5840-351-4643
		01		3A11A2	Generator Assembly		5840-471-0538
	11	02		3A11A3	Generator Assembly		5840-471-9406
		03		3A11A4	Modulator Assembly		5840-415-9866
		04		3A11A5	Modulator Assembly		5840-444-3911
		05		3A11A6	Modulator Assembly		5840-415-9865
		06		3A11A7	Modulator Assembly		5840-471-9407
		07		3A11A8	Modulator Assembly		5840-471-9408
		08		3A11A9	Modulator Assembly		5840-471-9416
		09		3A11A10	Modulator Assembly		5840-471-9415
		10		3A11A11	Modulator Assembly		5840-471-9414
		11		3A11A12	Modulator Assembly		5840-471-9413
		12		3A11A13	Modulator Assembly		5840-471-9412
		13		3A11A14	Modulator Assembly		5840-471-9411
		14		3A11A15	Modulator Assembly		5840-471-9410
		15		3A11A16	Modulator Assembly		5840-471-9409
		16		3A11A17	Driver Assembly		5840-410-0080
		17		3A11A19	Detector Assembly		5840-471-9397
		19		3A11A20	Detector Assembly		5840-471-9396
		20		3A11A21	Detector Assembly		5840-471-9395
		21		3A11A22	Receiver Assembly		5840-230-5541
		22		3A12	Synthesizer		
	12			137530-1	Buffer Assembly		5840-480-2309
		01		137546-1	Generator Assembly		5840-471-0526
		02			Generator Assembly		5840-225-1460
		03			Generator Assembly		5840-193-9571
		04			Generator Assembly		5840-225-1462
		05			Generator Assembly		5840-225-1463
		06			Generator Assembly		5840-225-1464
		07			Generator Assembly		5840-478-0546
		08			Generator Assembly		

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
03	12	09			3A12A9	Generator Assembly	5840-350-9949
		10			3A12A10	Generator Assembly	5840-350-9950
		11			3A12A11	Generator Assembly	5840-350-9960
		12			3A12A12	Multiplier Assembly	5840-480-2305
		13			3A12A13	Mixer Assembly	5840-480-2308
		14			3A12A14	Generator Assembly	5840-225-1468
		15			3A12A15	Generator Assembly	5840-225-1467
		16			3A12A16	Generator Assembly	5840-225-1466
		17			3A12A17	Generator Assembly	5840-350-9962
		18			3A12A18	Generator Assembly	5840-350-9973
		19			3A12A19	Generator Assembly	5840-350-9977
		20			3A12A20	Generator Assembly	5840-225-1454
		21			3A12A21	Generator Assembly	5840-225-1455
		22			3A12A22	Generator Assembly	5840-225-1458
		23			3A12A23	Amplifier Assembly	5840-471-0530
		26			3A12A26	Generator Assembly	5840-225-1457
		27			3A12A27	Generator Assembly	5840-225-1458
		28			3A12A28	Generator Assembly	5840-225-1459
		29			3A12A29	Generator Assembly	5840-402-2896
		30			3A12A30	Amplifier Assembly	5840-480-2304
				13	3A13	Core	
		01			3A13A1	Interface Logic	5840-187-0290
		02			3A13A2	Timing Control	5840-149-9292
		03			3A13A3	Data Channel	5840-187-0364
		04			3A13A4	Data Channel	5840-187-0364
		05			3A13A5	Data Channel	5840-187-0364
		06			3A13A6	Stack Assembly	5840-478-0742
		07			3A13A7	Drive Switch	5840-187-0349
		08			3A13A8	Sink Switch	5840-257-4647
		09			3A13A9	Drive Switch	5840-187-0349
		10			3A13A10	Sink Switch	5840-257-4647
				14	3A14	Regulator Volt	
		01			3A14A1	Regulator Assembly	6110-488-9364
		02			3A14A2	Regulator Assembly	6110-488-9364
		03			3A14A3	Regulator Assembly	6110-488-9364
		04			3A14A4	Regulator Assembly	6110-488-9364
		05			3A14A5	Regulator Assembly	6110-488-9364
		06			3A14A6	Regulator	6110-488-9364

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Position Identity			Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA MOD				
03	14	07	137226-1	3A14A7	Regulator Assembly	6110-488-9364
		08	137226-1	3A14A8	Regulator Assembly	6110-488-9364
		09	137226-1	3A14A9	Regulator Assembly	6110-488-9364
		10	137226-1	3A14A10	Regulator Assembly	6110-488-9364
		11	137226-1	3A14A11	Regulator Assembly	6110-488-9364
		12	137226-1	3A14A12	Regulator Assembly	6110-488-9364
		13	137226-1	3A14A13	Regulator Assembly	6110-488-9364
		14	137226-1	3A14A14	Regulator Assembly	6110-488-9364
		15	137226-1	3A14A15	Regulator Assembly	6110-488-9364
		16	137226-1	3A14A16	Regulator Assembly	6110-488-9364
		17		3A14A17	Regulator Assembly	6110-488-6306
		18		3A14A18	Regulator Assembly	6110-488-6306
		19		3A14A19	Regulator Assembly	6110-489-1177
		20		3A14A20	Regulator Assembly	6110-489-1177
		21		3A14A21	Regulator Assembly	6110-489-1177
		22		3A14A22	Regulator Assembly	6110-489-1177
		23		3A14A23	Regulator Assembly	6110-488-6304
		24		3A14A24	Regulator Assembly	6110-488-6304
		25		3A14A25	Regulator Assembly	6110-242-8123
		26		3A14A26	Regulator Assembly	6110-242-8123
		27		3A14A27	Regulator Assembly	6110-471-9422
				3A16	Power Supply	5840-351-4655
		16		3A17	Power Supply	5840-351-4655
		17		3A18	Elevation Circuits	5840-410-0071
		18		3A18A1	Comparator Assembly	5840-410-0071
		01		3A18A2	Comparator Assembly	5840-415-9663
		02		3A18A3	Comparator Assembly	5840-415-9663
		03		3A18A4	Comparator Assembly	5840-415-9663
		04		3A18A5	Comparator Assembly	5840-415-9663
		05		3A18A6	Pre-Amp Assembly	5840-410-0043
		06		3A18A7	Temp. Ref. Assembly	5840-187-0375
		07		3A18A8	Pre-Amp Assembly	5840-410-0043
		08		3A18A9	Buffer Assembly	5840-257-4649
		09		3A18A10	Buffer Assembly	5840-257-4649
		10		3A18A11	Amp. Assembly	5840-471-9364
		12		3A18A12	Amp. Assembly	5840-471-9364
		13		3A18A13	Filter Assembly consumable	5840-410-0040
		14		3A18A14	Contact Assembly	5840-471-9360
		15		3A18A15	Contact Assembly	5840-482-7135
		16		3A18A16	Contact Assembly	5840-482-7135

Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
04	01	01	03	137004-1	4	Console OJ-182
				137700-1	4A1	Ind. AZ IP 1022
				137730-1	4A1A1	Erase Read Circuits
					4A1A1A3	Control Assembly
	02	02	07	137783-1	4A1A2	Display Circuits
				137788-1	4A1A2A7	Control Assembly
				137762-1	4A1A3	Amp. P.S. Am 6296
				137785-1	4A1A3A1	Amp Assembly
	02	04	02		4A1A3A2	Amp Assembly
					4A1A4	CRT Assembly
				137800-1	4A2	Ind. Hgt, IP 1023
				138292-1		Panel Light
	02	02	01	137807-1	4A2A1A1	Amp. Assy.
				137807-1	4A2A1A2	Amp. Assy
				137807-1	4A2A1A3	Amp. Assy
				137807-1	4A2A2A1	Amp. Assy
	03	03	03	137807-1	4A2A2A2	Amp. Assy
				137807-1	4A2A2A3	Amp. Assy
				137840-1	4A2A3	Power Supply PP 6459
				137841-1	4A2A4	CRT Assembly
	04	04		137700-1	4A3	Ind., AZ, IP 1022 S/A
				137846-1	4A4	Control C7982
				137846-1	4A4A1	Ball
				137847-1	4A4A2	Ball
	04	03			4A4A3	Ball
	04	03				

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
04	04	04		137846-1	4A4A4	Ball
		05		137846-1	4A4A5	Ball
04	05			137950-1	4A5	Generator, Sync
		01		137931-1	4A5A1	PPI Circuits
		02			4A5A2	PPI Circuits
		03			4A5A3	Power Supply
		04			4A5A4	Servo Assembly
		05		137790-1	4A5A5	Servo Assembly
04	06	06		137790-1	4A5A6	Servo Assembly
					4A6	Conv. Sync CV 2730
		01			4A6A1	Logic Circuits
		02			4A6A2	RHI Circuits
		03			4A6A3	Delay Line Circuits
04	07			137849-1	4A7	Power Supply Assy. PP6460
		01			4A7A1	Power Supply
		02		137865-1	4A7A2	Power Supply PP 6464
		03			4A7A3	Power Supply
		04			4A7A4	Power Supply
		06			4A7A4A6	Regulator Assembly
		07			4A7A4A7	Regulator Assembly
		08			4A7A4A8	Regulator Assembly
		09			4A7A4A9	Regulator Assembly
		10			4A7A4A10	Regulator Assembly
		11			4A7A4A11	Regulator Assembly
		12			4A7A4A12	Regulator Assembly
		13			4A7A4A13	Regulator Assembly

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature
Unit	Assy	SA	Mod			
04	07	04	14	137970-1	4A7A4A14	Regulator Assembly
			15		4A7A4A15	Dimmer Assembly
			16		4A7A4A16	Regulator Assembly
			17		4A7A4A17	Regulator Assembly
			10		4A10	Switch
			11		4A11	Switch
						6110-433-4144
						5840-495-3400
						6110-433-4146
						6110-433-4147
						5930-776-8720
						5930-776-8720

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
05	03	01		137519-1	5A3	Processor Type 2	6110-489-1177
		02		137118-1	5A3A1	Control Assembly	6110-489-1177
		03		137145-2	5A3A2	Processor Video	6110-489-1177
		04		137145-2	5A3A3	Processor Video	6110-242-8123
		05		137145-2	5A3A4	Processor Video	6110-242-8123
	04			137145-2	5A3A5	Processor Video	6110-242-8123
					5A4	Regulator Volt	6110-488-6306
		02			5A4A2	Regulator Assembly	6110-488-6306
		03			5A4A3	Regulator Assembly	6110-488-6304
		04			5A4A4	Regulator Assembly	6110-488-6304
		05		137267-1	5A4A5	Regulator Assembly	6110-488-9364
		06			5A4A6	Regulator Assembly	5840-197-2850
		07			5A4A7	Regulator Assembly	5840-197-2853
		08			5A4A8	Regulator Assembly	5840-197-2850
		09			5A4A9	Regulator Assembly	5915-232-3205
		10			5A4A10	Regulator Assembly	5915-403-1617
		11			5A4A11	Regulator Assembly	
		12			5A4A12	Regulator Assembly	
					5A5	Amp-Fil AM 6297	
					5A5A1	Amp. Assy.	
	05	01		137170-1	5A5A1	Amp. Assy.	
		02			5A5A2	Amp. Assy.	
		03			5A5A3	Amp. Assy.	
		04			5A5A4	Filter Assy.	
		05			5A5A5	Filter Assy.	

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
05	05	06		137182-3	5A5A6	Filter Assembly	5915-194-6136
		07			5A5A7	Driver	5840-242-8079
		08			5A5A8	Driver	5840-242-8079
		09			5A5A9	Driver	5840-242-8079
		10			5A5A10	Amp. Assembly	5840-242-8079
		11			5A5A11	Amp. Assembly	5840-197-2850
		12			5A5A12	Amp. Assembly	5840-197-2850
		13			5A5A13	Amp. Assembly	5840-197-2850
		14			5A5A14	Amp. Assembly	5840-197-2850
		15			5A5A15	Amp. Assembly	5840-197-2850
		16			5A5A16	Detector Assembly	5840-197-2846
		17			5A5A17	Filter	5915-194-6149
		18			5A5A18	Filter	5915-194-6149
		19			5A5A19	Filter	5915-403-1627
		20			5A5A20	Filter	5915-403-1628
		21			5A5A21	Filter	5915-403-1628
		22			5A5A22	Filter	5915-403-1628
		23			5A5A23	Filter	5915-194-6148
		24			5A5A24	Filter	5915-403-1624
	06				5A6	Filter	5915-403-1625
		01			5A6A1	Ampl Fil AM 6301	5915-403-1619
		02			5A6A2	Filter	5915-403-1620
		03			5A6A3	Filter	5915-403-1621
		04			5A6A4	Detector	5840-407-3767
		05			5A6A5	Detector	5840-481-9854
		06			5A6A6	Detector	5840-407-3767
		07			5A6A7	Detector	5840-481-9854
		08			5A6A8	Detector	5840-407-3767
		09			5A6A9	Detector	5840-481-9854
	07			137280-1	5A7	Controller Hat 105	
		01			5A7A1	Blanker Fl284	
			01		5A7A1A1	Driver Assembly	5840-197-2925
			02		5A7A1A2	Driver Assembly	5840-197-2925
			03		5A7A1A3	Driver Assembly	5840-197-2925
			04		5A7A1A6	Driver Assembly	5840-197-2940
			05		5A7A1A6	Driver Assembly	5840-197-2940
			06		5A7A1A6	Oscillator Assembly	5840-480-2306
			07		5A7A1A7	Driver Assembly	5840-197-2940
			08		5A7A1A8	Driver Assembly	5840-197-2958
			09	137519-1	5A7A1A9	Driver Assembly	5840-197-2958
			10		5A7A1A10	Driver Assembly	5840-197-2958

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
05	03	01		137519-1	5A3	Processor Type 2	6110-489-1177
		02		137118-1	5A3A1	Control Assembly	6110-489-1177
		03		137145-2	5A3A2	Processor Video	6110-489-1177
		04		137145-2	5A3A3	Processor Video	6110-242-8123
		05		137145-2	5A3A4	Processor Video	6110-242-8123
				137145-2	5A3A5	Processor Video	6110-242-8123
	04				5A4	Regulator Volt	6110-488-6306
		02			5A4A2	Regulator Assembly	6110-488-6306
		03			5A4A3	Regulator Assembly	6110-488-6304
		04			5A4A4	Regulator Assembly	6110-488-6304
		05			5A4A5	Regulator Assembly	6110-488-9364
		06			5A4A6	Regulator Assembly	6110-488-9364
05		07		137267-1	5A4A7	Regulator Assembly	6110-488-9364
		08			5A4A8	Regulator Assembly	6110-488-9364
		09			5A4A9	Regulator Assembly	6110-488-9364
		10			5A4A10	Regulator Assembly	6110-488-9364
		11			5A4A11	Regulator Assembly	6110-488-9364
		12			5A4A12	Regulator Assembly	6110-488-9364
	05				5A5	Amp-Fil AM 6297	5840-197-2850
		01			5A5A1	Amp. Assy.	5840-197-2853
		02			5A5A2	Amp. Assy.	5840-197-2850
		03			5A5A3	Amp. Assy.	5915-232-3205
		04			5A5A4	Filter Assy.	5915-403-1617
		05			5A5A5	Filter Assy.	5915-403-1617

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
05	05	06		137182-3	5A5A6	Filter Assembly	5915-194-6136
		07			5A5A7	Driver	5840-242-8079
		08			5A5A8	Driver	5840-242-8079
		09			5A5A9	Driver	5840-242-8079
		10			5A5A10	Amp. Assembly	5840-242-8079
		11			5A5A11	Amp. Assembly	5840-197-2850
		12			5A5A12	Amp. Assembly	5840-197-2850
		13			5A5A13	Amp. Assembly	5840-197-2850
		14			5A5A14	Amp. Assembly	5840-197-2850
		15			5A5A15	Amp. Assembly	5840-197-2850
		16			5A5A16	Detector Assembly	5840-197-2846
		17			5A5A17	Filter	5915-194-6149
		18			5A5A18	Filter	5915-194-1626
		19			5A5A19	Filter	5915-403-1627
		20			5A5A20	Filter	5915-403-1628
		21			5A5A21	Filter	5915-403-1623
		22			5A5A22	Filter	5915-403-1623
		23			5A5A23	Filter	5915-194-6148
		24			5A5A24	Filter	5915-403-1624
	06				5A6	Filter	5915-403-1625
					5A6A1	Amp1 Fil AM 6301	5915-403-1619
		01			5A6A2	Filter	5915-403-1620
		02			5A6A3	Filter	5915-403-1621
		03			5A6A4	Filter	5915-403-1621
		04			5A6A5	Detector	5840-407-3767
		05			5A6A6	Detector	5840-481-9854
		06			5A6A7	Detector	5840-407-3767
		07			5A6A8	Detector	5840-481-9854
		08			5A6A9	Detector	5840-407-3767
	07	09		137280-1	5A7	Controller Hat 105	5840-481-9854
					5A7A1	Blanker Fl284	
		01			5A7A1A1	Driver Assembly	5840-197-2925
		02			5A7A1A2	Driver Assembly	5840-197-2925
		03			5A7A1A3	Driver Assembly	5840-197-2925
		04			5A7A1A6	Driver Assembly	5840-197-2940
		05			5A7A1A6	Driver Assembly	5840-197-2940
		06			5A7A1A6	Oscillator Assembly	5840-480-2306
		07			5A7A1A7	Driver Assembly	5840-197-2940
		08			5A7A1A8	Driver Assembly	5840-197-2958
		09		137519-1	5A7A1A9	Driver Assembly	5840-197-2958
		10			5A7A1A10	Driver Assembly	840-197-2958

Position Identity			Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA MOD				
05	08	01	137422-1	5A8	Amp. Fil AM 6298	5915-194-6137
		02		5A8A1	Filter Assembly	5915-402-8772
		03		5A8A2	Filter Assembly	5915-402-8773
		04		5A8A3	Filter Assembly	5915-194-6137
		05		5A8A4	Filter Assembly	5915-402-8772
		06		5A8A5	Filter Assembly	5915-402-8773
		07		5A8A6	Detector	5840-407-3767
		08		5A8A7	Detector	5840-407-3767
		09		5A8A8	Detector	5840-407-3767
		10		5A8A9	Detector Assembly	5840-405-5672
		11		5A8A10	Detector Assembly	5840-405-5672
		12		5A8A11	Detector Assembly	5840-405-5672
		13		5A8A12	Detector Assembly	5840-405-5672
		14		5A8A13	Detector Assembly	5840-405-5672
		15		5A8A14	Detector Assembly	5840-405-5672
		16		5A8A15	Detector Assembly	5840-405-5672
		17		5A8A16	Detector Assembly	5840-197-2850
05	10	01	137201-1	5A8A17	Amp. Assembly	5840-197-2850
		02		5A8A18	Amp. Assembly	5840-197-2850
		03		5A8A19	Amp. Assembly	5840-197-2850
		04		5A8A20	Amp. Assembly	5840-197-2850
		05		5A8A21	Amp. Assembly	5840-197-2850
		06		5A8A22	Amp. Assembly	5840-197-2850
		07		5A8A23	Amp. Assembly	5840-197-2850
		08		5A8A24	Amp. Assembly	5840-197-2850
		09		5A8A25	Amp. Assembly	5840-197-2850
		10		5A8A26	Amp. Assembly	5840-197-2850
		11		5A8A27	Amp. Assembly	5840-197-2850
		12		5A8A28	Amp. Assembly	5840-197-2850
		13		5A8A29	Amp. Assembly	5840-197-2850
		14		5A8A30	Amp. Assembly	5840-197-2850
		15		5A8A31	Amp. Assembly	5840-197-2850
		16		5A8A32	Amp. Assembly	5840-197-2850
		17		5A8A33	Amp. Assembly	5840-197-2850
05	10	01	137201-1	5A8A34	Amp. Assembly	5840-197-2850
		02		5A8A35	Amp. Assembly	5840-197-2850
		03		5A8A36	Amp. Assembly	5840-197-2850
		04		5A8A37	Amp. Assembly	5840-197-2850
		05		5A8A38	Amp. Assembly	5840-197-2850
		06		5A8A39	Amp. Assembly	5840-197-2850
		07		5A8A40	Amp. Assembly	5840-197-2850
		08		5A8A41	Amp. Assembly	5840-197-2850
		09		5A8A42	Amp. Assembly	5840-197-2850
		10		5A8A43	Amp. Assembly	5840-197-2850
		11		5A8A44	Amp. Assembly	5840-197-2850
		12		5A8A45	Amp. Assembly	5840-197-2850
		13		5A8A46	Amp. Assembly	5840-197-2850
		14		5A8A47	Amp. Assembly	5840-197-2850
		15		5A8A48	Amp. Assembly	5840-197-2850
		16		5A8A49	Amp. Assembly	5840-197-2850
		17		5A8A50	Amp. Assembly	5840-197-2850

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
05	13	02	01		5A13A2	Control, Intercom	5895-758-2144
					5A13A2A1	Control, Trunk	5840-451-6706
		03			5A13A3	Regulator Assembly	6110-489-1177
		04			5A13A4	Regulator Assembly	6110-242-8123
		05			5A13A5	Control	5895-758-2144
		06			5A13A5A1	Control, Trunk	5840-451-6706
06	01				5A13A6	Control, Intercom	5830-753-7853
					5A13A6A1	Control, Audio	5895-753-7855
			02		5A13A6A2	Control, Audio	5895-753-7856
					6	Transmitter Radar T1167	
		01			6A1	Transmitter Control C8510	
					6A1A1	Plate Multiple Function No. 1	
			06		6A1A1A6	Relay Assembly	5945-938-6899
			18		6A1A1A18	Relay Assembly	5945-938-6899
			30		6A1A1A30	Relay Assembly	5945-938-6899
			31		6A1A1A31	Relay Assembly	5945-938-6899
			41		6A1A1A41	Relay Assembly	5945-938-6899
			42		6A1A1A42	Relay Assembly	5945-938-6899
02	02		53		6A1A1A53	Relay Assembly	5945-938-6899
			54		6A1A1A54	Relay Assembly	5945-938-6899
					6A2	Relay Assembly	5945-938-6899
		01			6A2A1	Panel SB 3479	
					6A2A1A1	Plate Multiple Function	
		01			6A2A1A6	Relay Assembly	5945-938-6899
		06			6A2A1A19	Relay Assembly	5945-938-6899
		19			6A2A1A32	Relay Assembly	5945-938-6899
		32			6A2A1A45	Relay Assembly	5945-938-6899
		45			6A2A1A58	Relay Assembly	5945-938-6899
		58			6A2A1A59	Relay Assembly	5945-938-6899
		59			6A3	Relay Assembly	5945-938-6899
03	03				6A3A1	Power Supply, 208 VAC	5840-402-2885
		01			6A3A1A1	Power Supply Subassembly	
					6A3A2	Panel Temperature	
		02			6A4	Pressurizer Installation	
					6A401	Control Indicator C 8509	
		01			6A402	Sensor Temp. Circuit Card Assy.	5840-187-0356
04	04				6A5	Compressor Unit	4310-230-2410
		02			6A5A1	Panel	
		03					
		01					
05	05						

Position Identity			Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA MOD				
06	05	02	133703-1	6A5A2	Panel, Conn. MTG	5840-406-2307
		05	133032-1	6A5A5	Power Supply, 208 VAC	5840-195-6546
		08	133075-1	6A5A8	Converter, Frequency, CV-2731	
	06			6A6		
		01	133009-1	6A6A1	Panel	5840-938-6500
		02	133105-1	6A6A2	Contractor Assembly	5840-224-1878
		01	133023-1	6A7A2A1	Sensor Assembly	5840-224-1887
		03	133028-1	6A6A3	Contractor Assembly	5840-224-1878
		01	133023-1	6A6A3A1	Sensor Assembly	5840-187-0356
		05	133008-1	6A6A5	Sensor	
			133386-1	6A7	Panel	
	07	02	133020-1	6A7A2	Amplifier, Power Supply	5840-402-5959
		03	133070-1	6A7A3	Elect. Components Assembly	5840-187-0253
	08			6A8		
		02	133092-1	6A8A2	Power Supply	5840-145-2599
		03	133642-1	6A8A3	Interlock Relay	5840-938-6510
		04	133019-1	6A8A4	Test Assembly	
		05	133016-1	6A8A5	Oscillator Assembly	
	09		133014-1	6A9		
		03	133015-1	6A9A3	Power Supply, 117 VAC, PP6474	5840-402-2884
		04	133017-1	6A9A4	Test Assembly	
		05	133305-1	6A9A5	Filter Assembly	
	10		133030-1	6A10		
		02	133020-1	6A10A2	Amplifier	5840-402-7389
	11			6A11		
		02	133428-1	6A11A2	Amplifier, Subassembly	
		03	133440-1	6A11A3	Amplifier Subassembly	
		04	133020-1	6A11A4	Amplifier	5840-402-5959
		05	133444-1	6A11A5	Amplifier Subassembly	
07			133080-1	7	Receiver - Transmitter	RT/997/TPS-32
	01			7A1		
		01	133044-1	7A1A1	Panel Control	
		01	C6659GSA78V	7A1A1A1	Control Box, Electrical	6110-932-1987
	02	02	AM4358GSA78V	7A1A1A1	Amplifier, Control	4130-932-1968
	03			7A2		
				7A3		

Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
07	03 04	01		133784-1	7A3A1	Panel Assembly	
					7A4		
	01	01		133088-1	7A4A1	Panel	
				133008-1	7A4A2	Sensor	5840-187-0356
	05	01		133025-1	7A5	Panel	
				131032-1	7A5A1	Amplifier	5840-488-6255
	02	02	01	145516-1	7A5A2	Isolator	5840-137-6761
				25173	7A5A2A1	Amplifier	5840-137-6763
	03	02	02	25251	7A5A2A2	Attenuator, Variable	5985-233-7242
				25261	7A5A2A3	Isolator	5840-137-6762
	04	03	04	25183	7A5A2A4	Panel Test	
				131028-1	7A5A3	Power Supply	
	03	04		131033-1	7A5A4	Regulator, Voltage	6110-938-6787
				131027-1	7A5A4A1	Regulator Assembly	6110-938-6789
	02	02		131034-1	7A5A4A2	Regulator Assembly	6110-938-6790
				131035-1	7A5A4A3	Power Supply Subassembly	5840-194-6007
	04	03	04	131038-1	7A5A4A4	Pre-Amp	5840-224-1877
				131026-1	7A5A5	Generator Assembly	
	05	06		131031-1	7A5A6	Panel	
					7A6	Test Assembly	
	06	01		133089-1	7A6A1	Amp. Power Supply	5840-195-1484
				133021-1	7A6A2	Amplifier	5840-402-5959
08	03	03	01	133095-1	7A6A3	Relay Assembly	5840-224-1889
				133020-1	7A6A3A1	Sensor	5840-187-0356
	04	04		133031-1	7A6A4	Tester, TR Limit	
				133008-1	7A6A7	Panel	
	07	08		133025-1	7A6A8	Control, Power Supply	5840-195-1507
					7A7	Sensor Assembly	5840-224-1878
	08	01		133050-1	7A7A1		
				133089-1	7A8		
	09	02	01	133029-1	7A8A2		
				133023-1	7A8A2A1		
	10	09		135126-1	7A9		
					7A10		
12	11	02		134330-1	7A11	RF Power Amp.	
				133091-1	7A11A2	Control	5840-145-2599
	03	03		133092-1	7A11A3	Elect. Comp.	5840-187-0253
				133070-1	7A11A4		
	12	02		133741-1	7A12	Shorting Device	5840-938-6511
				135326-1	7A12A2		

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
08	01	01		135004-1	8	Transmitter, Radar, T-1166	SMR Code X2
				134262-1	8A1	Panel, AC Outlet	SMR Code X2
	02			145657-9	8A1XDS1	Indicator Assy.	AFFR
	03			133785-1	8A2	Panel, Blank	SMR Code X2
				135020-1	8A3	Panel, Temp. Control	SMR Code X2
		01		C6659-GSA78V	8A3A1	Control Box, Electrical	6110-932-1987
		02		AM4358-GSA78V	8A3A2	Amp., Electronic Control	4130-932-1986
	04			135009-1	8A4	Coolant Installation	SMR Code U
				135005-1	8A4A1	Panel, Monitor, SB-3469	SMR Code X2
		01		145657-11	8A4ALXDS-1	Indicator Assy.	AFFR
		02		145657-11	8A4ALXDS-2	Indicator Assy.	AFFR
		03		145657-11	8A4ALXDS-3	Indicator Assy.	AFFR
		04		145657-11	8A4ALXDS-4	Indicator Assy.	AFFR
				145547-1	8A4B1	Pump, Cent. Radial Flow	4320-403-3254
		02		133376-1	8A4S3	Switch, Float	6680-413-0298
		03		135014-1	8A5A1	Panel, Monitor SB-3470	6680-413-0298
	05			145658-23	8A5ALS1	Light Switch Assy.	AFFR
		01		145658-22	8A5ALS2	Light Switch Assy.	AFFR
		02		145658-24	8A5ALS3	Light Switch Assy.	AFFR
		03		145658-22	8A5ALS4	Light Switch Assy.	AFFR
		04		145658-22	8A5ALS5	Light Switch Assy.	AFFR
		05		145658-6	8A5ALS8	Light Switch Assy.	AFFR
		08		145658-1	8A5ALS9	Light Switch Assy.	AFFR
		09		145658-1	8A5ALS10	Light Switch Assy.	AFFR
		10		145658-7	8A5ALS11	Light Switch Assy.	AFFR
		11		145658-4	8A5ALS12	Indicator	AFFR
		12		145657-15	8A5ALXDS2	Indicator	AFFR
		13		145657-7	8A5ALXDS3	Indicator	AFFR
		14		145657-7	8A5ALXDS4	Indicator	AFFR
		15		145657-7	8A5ALXDS5	Indicator	AFFR
		16		145657-15	8A5ALXDS6	Indicator	AFFR
		17		145657-7	8A5ALXDS7	Indicator	AFFR
		18		145657-6	8A5ALXDS8	Indicator	AFFR
		19		145657-7	8A5ALXDS9	Indicator	AFFR
		20		145657-7	8A5ALXDS10	Indicator	AFFR
		21		145657-2	8A5ALXDS11	Indicator	AFFR
		22		145657-2	8A5ALXDS12	Indicator	AFFR
		23		145657-2	8A5ALXDS13	Indicator	AFFR
		24		145657-2	8A5ALXDS14	Indicator	AFFR
		25		145657-2	8A5ALXDS15	Indicator	AFFR
		26		145657-2	8A5ALXDS16	Indicator	AFFR

EQUIPMENT BREAKDOWN FOR: AN/TPS-32

Page 13

Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
08	05	01	27	145657-15	8A5A1XDS17	Indicator	AFFR
			28	145657-16	8A5A1XDS18	Indicator	AFFR
			30	145657-16	8A5A1XDS20	Indicator	AFFR
			31	145657-15	8A5A1XDS21	Indicator	AFFR
			32	145657-15	8A5A1XDS22	Indicator	AFFR
				145657-2	8A5XDS1	Indicator	AFFR
				135007-1	8A5A2	Waveguide Installation (Test Assy)	X2
				133008-1	8A5A3	Sensor, Temperature Chart	5840-254-4917
				134402-1		Interlock Assy.	U
				134393-2		Indicator	X2
	06	06	01	14567-2	8A5XDS1	Power Supply	AFFR
				135018-1			U
				135013-1	8A6A1	Panel, Power Distribution	X2
			01	145658-20	8A6A1S1	Light Switch Assy.	AFFR
			02	145658-26	8A6A1S2	Light, Switch Assy.	AFFR
			03	145657-1	8A6A1XDS1	Indicator	AFFR
			04	145657-8	8A6A1XDS4	Indicator	AFFR
			05	145657-17	8A6A1XDS5	Indicator	AFFR
			06	134393-2		Interlock Assy	X2
				133031-1	8A6A2	Relay Assy.	5840-224-1884
	07	06	02	133095-1	8A6A5	Amplifier, Power Supply, AM6304	5840-195-1481
			05	133020-1	8A6A5A1	Generator Assy	5840-402-5959
			06	133008-1	8A6A6	Sensor, Temp.	5840-254-4917
				135258-1	8A7	Panel	X2
			01	133637-1		Inter Lock Assy.	X2
			02		8A7A2	Control, Power Supply C8507	X2
			03	133023-1	8A7A2A1	Sensor Assy.	5840-224-1878
				145657-3		Indicator	AFFR
					8A8		
				134393-2		Interlock Assy.	AFFR
	08	01		145657-2	8A8XDS1	Indicator	AFFR
				135196-1	8A9	Panel	
				134393-2		Interlock Assy.	AFFR
				145657-2		Indicator	AFFR
				134327-1	8A9XDS1	P.S. Installation Subassy.	U
				135163-1		P.S. Installation Subassy.	U
	09	01					

EQUIPMENT BREAKDOWN FOR: AN/APS-32

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	MOD				
08	09	05		134329-1	8A9DC1 8A10 8A10A2 8A10A3 8A10A4 8A11 8A11Z1 8A11DC1 8A11A2 8A12 8A12A1	P.S. Installation Subassy.	U
		06		135103-1		Coupler, Directional Waveguide	5985-413-5383
	10			135199-1		Panel	X2
		02		133091-2		Amplifier, R.F., AM 6295	X2
			01	133148-2		Amplifitron Assy	X2
			02	133147-1		Tank Assy.	5840-223-1700
			03	133162-1		Tank Subassy.	X2
		03		133092-1		Control Power Supply C8508	X2
		04		133070-1		Control Assy.	5840-187-0253
	11			135198-1		Panel	X2
		01		134395-1	8A11Z1 8A11DC1 8A11A2 8A12 8A12A1	Interlock Assy	5915-421-6383
		03		145502-1		Network	5985-412-5386
		04		135170-1		Coupler, Directional, Waveguide Type	5840-938-6511
		02		135326-1		Shorting Device	X2
	12			135023-1		Regulator Voltage	X2
		02		805533G3		Variable Transformer Assy	X2
		03		810757G2		Variable Transformer Subassy.	X2
		04		804032G1		Variable Transformer Subassy.	X2
		01		803028G1		Control Unit	6110-244-2308
	13			135021-1		Maint. Group Radar Set OQ-73	U
		01		144044-1	8A11Z1 8A11DC1 8A11A2 8A12 8A12A1	Adapter, Test	5840-230-5300
		02				Adapter, Test	5840-481-6662
		03				Adapter, Test	5840-478-0739
		04				Adapter, Test	5840-223-1702
			01	144289-1		Divider, Power, R.F., CN-1331	X2
		05		144057-1		Divider Subassy.	6680-358-0429
		06		144062-1		Meter, Flow Rate Indicator	5840-195-1500
		07		144063-1		Dummy Load	5840-195-1501
		08				Dummy Load DA-565	6625-228-2201
		09				Oscilloscope AN/USM-281A	6625-519-2056

EQUIPMENT BREAKDOWN FOR: AN/TPS-32

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Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	Mod				
09	01	01 02 03 04 06 07 08		OE-91/TPS-32	9 9A1 9ALA1 9ALA2	Antenna Group	5840-230-5289
				AB1152TPS-32		Antenna Pedestal	X2
				J-2390/TPS-32		Interconnecting Box	5840-402-2906
				131021-1		Waveguide Installation	X2
				131007-1		Antenna Drive Mount	X2
				131012-1		Bearing Antenna Mount	5840-424-3937
				131009-1		Gearbox Drive	5840-224-1867
				145630-1		Coupler, Rotary, RF	5840-193-9570
	02			131010-1	9ALA8 9A2	Servomechanism, Take-Off Data	5840-938-6481
				AS2536TPS-32		Antenna Pedestal Mtd., MTR-Driven	X2
				131060-1		Hydraulic Installation	X2
				131015-1		Radar Set Subassembly	5840-402-5966
				AS2188U		Antenna, IFF	5985-168-8915
				145520-1		Motor, AC, 400 Hz	6105-177-4631

Position Identity				Part Number	Reference Symbol	Description/Nomenclature	FSN
Unit	Assy	SA	Mod				
10	01			144000-1	10	Interconnection Box	5840-481-6661
				144001-1	10A1	Remoting Unit	SMR Code X2
		01		137573-8	10A1A1	Detector Assy.	5840-471-9400
		02		137573-7	10A1A2	"	5840-471-9399
		03		137573-6	10A1A3	"	5840-471-9398
		04		137573-5	10A1A4	"	5840-237-8326
		05		137573-4	10A1A5	"	5840-237-8325
		06		137573-3	10A1A6	"	5840-237-8322
		07		137573-2	10A1A7	"	5840-237-8321
		08		137573-1	10A1A8	"	5840-480-2310
		09		137533-1	10A1A9	"	5840-471-9384
		10		137573-9	10A1A10	"	5840-471-9401
		11		137573-10	10A1A11	"	5840-471-9389
		12		137573-11	10A1A12	"	5840-471-9390
		13		137573-12	10A1A13	"	5840-471-9391
		14		137573-13	10A1A14	"	5840-471-9392
		15		137573-14	10A1A15	"	5840-471-9393
		16		137573-15	10A1A16	"	5840-471-9394
		17		137575-1	10A1A17	Driver Assy.	5840-471-0532
		21		137571-19	10A1A21	Modulator Assy.	5840-471-9419
		22		137571-18	10A1A22	Modulator Assy.	5840-471-9418
		23		137571-17	10A1A23	"	5840-471-9417
02	02			144022-1	10A2	Interface Unit	SMR Code X2
		01		137262-1	10A2A1	Regulator Assy.	6110-489-1177
		02		137263-1	10A2A2	"	6110-242-8123
		05		531031	10A2A5	Driver Assy.	5895-018-4591
		06		"	10A2A6	"	5895-018-4591
		07		"	10A2A7	"	"
		08		"	10A2A8	"	"
		09		"	10A2A9	"	"
		10		"	10A2A10	"	"
		11		144025-1	10A2A11	Receiver Assy.	5840-232-9299
		12		144026-1	10A2A12	Driver Assy.	5895-018-4592
		13		531032	10A2A13	Receiver Assy.	5840-415-9862
						Receiver Assy.	5895-018-4592
						Driver Assy.	5895-018-4592
						Receiver Assy.	5895-018-4592
						Receiver Assy.	5895-018-4592
						Receiver Assy.	5895-018-4592

3. MACCS OPERATE-HOURS DATA

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OPERATE-HOURS DATA

SECTION 1. INTRODUCTION

The purpose of this procedure is to add new operate hours to the operate-hours tapes and to make corrections to the operate hours already on magnetic tape. This procedure, consisting of two utility routines and one COBOL program, is performed on the IBM 370/135 Disk Operating System (DOS) computer.

Weekly Equipment Timer Reports (enclosure 1) are received from the MACCS field units and transcribed onto the Weekly Equipment Timer Report Encoding Form (enclosure 2). From this form, IBM cards are keypunched to incorporate all of the operate-hours data.

Corrections to data already on magnetic tape are encoded onto the MACCS Changes Encoding Form (enclosure 3) and keypunched on IBM cards.

SECTION 2. APPLICABLE DOCUMENTS

No Government/non-Government documents are referred to in this procedure.

SECTION 3. INPUTS

The inputs to add new data to the operate-hours tapes are IBM cards and a magnetic tape.

The inputs to correct data already on the operate-hours tapes are IBM cards and a magnetic tape.

SECTION 4. BASIC OPERATIONS

To add new data to the operate-hours tapes, the data on cards are put on magnetic tape by the utility routine CDTAPE. Then utility routine MRGHRs merges and sorts the new operate hours with the hours on the old master operate-hours tape by equipment identity and card type. Enclosures 4,5, and 6 are the logic flow, operating procedure and program listings of this procedure. This new tape is retained and used as the master operate-hours tape.

To make corrections to the existing operate-hours tapes, EDTAPE, a COBOL program, is used. Enclosures 7,8, and 9 are the logic flow, operating procedure and program listing of this procedure.

SECTION 5. OUTPUTS

The output of this procedure is a magnetic tape that contains the operate hours on each of the equipment groups of the systems of the MACCS. Operate hours on each system (i.e., AN/TYQ-1, AN/TYQ-2, AN/TYQ-3 and AN/TPS-32) of the MACCS are placed on a separate magnetic tape.

WEEKLY EQUIPMENT TIMER REPORTS

Enclosure 1

AN/TYQ-1 WEEKLY EQUIPMENT TIMER REPORT

For: _____ Date: _____

Technician: _____ Ext. _____

System _____

Equipment	Serial No.	Timer Reading
AN/TYA-1 Display Generator Group DGEG		
AN/TYA-3 Teletypewriter Group		
Power Supply No. 1		
Power Supply No. 2		
Power Supply No. 3		
AN/TYA-16 Communication Group		
Modem No. 1		
Modem No. 2		
Modem No. 3		
Modem No. 4		
Modem No. 5		
CDPU Command Display Projection Unit		

AN/TYQ-2 WEEKLY EQUIPMENT TIMER REPORT

For: _____ Date: _____

Technician: _____ Ext. _____

EQUIPMENT		SERIAL NO.	TIMER READING
AN/TYA-5	Central Computer Group I Hut		
	PN 532100 Magnetic Drum*		
AN/TYA-6	Data Processor Group II Hut		
	PN 532250 L Unit Drum (2D)*		
	M Unit Drum (2D)*		
AN/TYA-18	Radar IFF Data Processor Group IIA Hut		
	PN 532250 N Unit Drum (2D)*		
	V Unit Drum (3D)*		
AN/TYA-18	Radar IFF Data Processor Group IIA Hut		
	PN 532250 N Unit Drum (2D)*		
	V Unit Drum (3D)*		
AN/TYA-7	Geographic Display Group III Hut		
AN/TYA-12	Communications Group VII Hut		
AN/TYA-26	Ancillary Group ANC		
AN/TYA-9	Operator Group (Power Panel) OP 1		
	Console One (PCU)		
	Console Two (PCU)		
	Console Three (PCU)		
	Operator Group (Power Panel) OP 2		
	Console One (PCU)		
	Console Two (PCU)		
	Console Three (PCU)		
	Operator Group (Power Panel) OP 3		
	Console One (PCU)		
	Console Two (PCU)		
	Console Three (PCU)		
	Operator Group (Power Panel) OP 4		
	Console One (PCU)		
	Console Two (PCU)		
	Console Three (PCU)		
	Operator Group (Power Panel) OP 5		
	Console One (PCU)		
	Console Two (PCU)		
	Console Three (PCU)		
TS-2426	Analog Test Set*		
TS-2425	Digital Test Set*		
TS-2424	Power Supply Tester*		
OA-7538/TYQ-2	Drum Fill Unit		
AN/TYM-2	Micropositioner Test Set*		
*Read on the first of the month only			

ARINC Research 31 August 1971

AN/TYQ-3 WEEKLY EQUIPMENT TIMER REPORT

For: _____ Date: _____

Technician: _____ Ext. _____

Equipment	Serial No.	Timer Reading
AN/TYA-17 Data Terminal Group		
AN/SSM-4A		
USC-8		
AN/TYA-19 Data Communications Group		
Radio Channel No. 1		
Radio Channel No. 2		
AN/TYA-20 Compatibility Computer Group		
CP-808		
AN/TYA-24 Maintenance Transport Group		
URM-158		
URM-159		

AN/TPS-32 WEEKLY EQUIPMENT TIMER REPORT

FOR: _____ Date: _____

Technician: _____ Ext: _____

OL-56/TPS-32 Data Analysis Group
(Operations Shelter)

Serial No. _____

Timer Location	Identification	Reading
Main Power Panel	CMPTR	
	DISPLAY	
	RCVR	
	PWR SUP	

OR-65/TPS-32 Receiver-Transmitter Group Serial No. _____
(Transmitter Shelter #1)

Timer Location	Identification	Reading
SB-3478 Gen. #1 Primary Power Panel	1st Stage FIL	
	2nd Stage FIL	
	3rd Stage FIL	
	1st Stage HV	
	2nd Stage HV	
	3rd Stage HV	
SB-3483 Gen. #2 Primary Power Panel	TRIG AMPL FIL	
	DRIVER FIL	
	TRIG AMPL HV	
	DRIVER HV	
SB-3482 RF Head Test Panel	PWR SUPPLY HV	

OT-26/TPS-32 Transmitter-Interrogator Group Serial No. _____
(Transmitter Shelter #2)

Timer Location	Identification	Reading
SB-3471 Power Distribution Panel	FINAL FIL	
	FINAL HV	
	TRIG AMPL FIL	
	TRIG AMPL HV	

WEEKLY EQUIPMENT TIMER REPORT ENCODING
FORM WITH INSTRUCTION SHEET

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ARINC RESEARCH CORPORATION

SQUADRON:

M A C S		G R O U P		Group S/N		ACCEPTANCE		HOURS PER QUARTER																												C				
						DATE	HOURS	CT: A: 66,67,68 CT: B: 69,70,71 CT 3: 72,73,74 CT D: 75,76,77																																
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	
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WEEKLY EQUIPMENT TIMER REPORT
ENCODING FORM INSTRUCTION SHEET

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-2	MACS	Enter two digits of squadron code.
3-5	Group	Enter three digits of group code.
6-9	Group S/N	Enter serial number of the group.
10-14	Acceptance Date	Enter month, day and year equipment was accepted.
15-19	Acceptance Hours	Enter timer recording of equipment when accepted.
20-67	Hours per Quarter	Enter the total number of hours per quarter the equipment group operated. 1st four digits 1st quarter 2nd four digits 2nd quarter 3rd four digits 3rd quarter 4th four digits 4th quarter

NOTE: Columns 20-35 are for years 66, 69, 72, 75.

Columns 36-51 are for years 67, 70, 73, 76.

Columns 52-67 are for years 68, 71, 74, 77.

68-79		Not Used
80	CT	Enter the following code: A if 1966, 1967, 1968 B if 1969, 1970, 1971 C if 1972, 1973, 1974 D if 1975, 1976, 1977

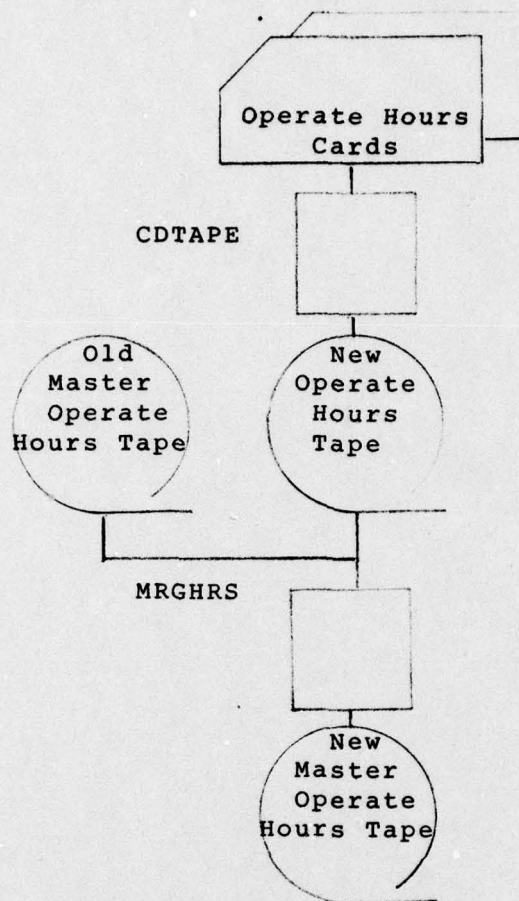
MACCS CHANGES ENCODING FORM
WITH INSTRUCTION SHEET

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Enclosure 3

MACCS CHANGES ENCODING FORM
INSTRUCTION SHEET

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-5	Record No.	Enter record number from printout of operate-hours tape.
6-7	Begin	Enter two-digit number of column where correction is to begin.
8-9	End	Enter two-digit number of column where correction is to end.
10-80	MACCS Changes	Enter correction data.



LOGIC FLOW TO ADD OPERATE HOURS
TO OPERATE HOURS TAPES

Enclosure 4

PROCEDURE

TITLE: OPHRRS - ADDRECS

PURPOSE: To add new operate hours to operate-hours tapes

STEP 1:

Program: CDTAPE

Language: Utility

Description: Puts new operate-hours cards on tape
and blocks by 25

Input: MACCS Operate-Hours Cards.

Format: See Figure 1, p. 156.

Output: New Operate-Hours Tape.

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 157.

STEP 2:

Program: MRGHRS

Language: Utility

Description: Sorts and merges new operate-hours with old
master operate-hours tape

Enclosure 5

Input: (1) New Operate-Hours Tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 157.

(2) Old Master Operate-Hours Tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 157.

Output: New Master Operate-Hours Tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 157.

Order: Equipment ID, CT

WORK ORDER NO. 1302-01

ARINC RESEARCH CORPORATION

SHEET NO. _____ OF _____
DATE _____

SQUADRON:

M A C S		G R C U P		Group S/N		ACCEPTANCE		HOURS PER QUARTER																25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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Figure 1

PROGRAM LISTINGS TO ADD NEW
OPERATE-HOURS TO MASTER OPERATE-HOURS TAPES

Enclosure 6

CRD 292

// JOB 1302-01 CDTAPE CARD-TAPE UTILITY (80/2000)

// ASSIGN SYS005,X'292'

// ASSIGN SYS004,X'00C'

// UPSTL 00100000

// EXEC CDTF

// UCT TR,FF,A=(80,801,8=(80,2000),11,OR,R1

// END

//*

//E

CDTAPE

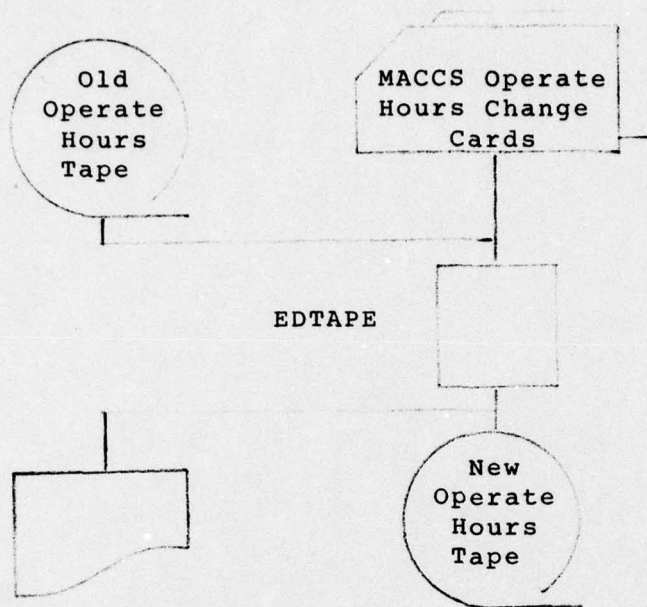
90.91 93

] // JOB 1302-01 MRGHRM MERGE NEW OPERATE HOURS DATA WITH OLD DATA

```
// ASSGN SYS002,X*290*  
// ASSGN SYS003,X*291*  
// ASSGN SYS001,X*293*  
// ASSGN SYS004,X*131*  
// DLBL SORTWK1,00  
// EXTENT SYS004,999999,1,0,100,2000  
// EXEC SORT  
SORT FIELDS=(1,5,A,80,1,A),FORMAT=BI,WORK=1,FILES=2  
RECORD TYPE=F,LENGTH=80  
INPFI  BLKSIZE=2000  
OUTFI  BLKSIZE=2000  
OPTION LABEL=(U,U,U)  
END  
/*  
/*
```

MRGHRM

3-25



Listing of
Cards with Errors

LOGIC FLOW TO MAKE CORRECTIONS
TO OPERATE HOURS TAPES

Enclosure 7

PROCEDURE

TITLE: OPHRRS Corrections

PURPOSE: To make corrections to operate-hours tapes

STEP 1:

Program: EDTAPE

Language: COBOL

Description: Corrections are made to specific columns in specific records on the operate-hours tapes from the input cards. Since the input cards are sorted internally by record number, they need not be in order.

Input: (1) MACCS Operate-Hours Change Cards

Format: See figure 1, p. 163.

(2) Old Master Operate-Hours Tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 164.

Output: (1) New Master Operate-Hours Tape

Rec Length = 80

Block Length = 2000

Mode = C0

Label: No

Format: See figure 2, p. 164.

(2) Listing of invalid cards for which corrections

were not made 3-29

Enclosure 8

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Record No.		MACCS CHANGES	
Begin	End		
1	2	1	1
2	3	2	2
3	4	3	3
4	5	4	4
5	6	5	5
6	7	6	6
7	8	7	7
8	9	8	8
9	10	9	9
10	11	10	10
11	12	11	11
12	13	12	12
13	14	13	13
14	15	14	14
15	16	15	15
16	17	16	16
17	18	17	17
18	19	18	18
19	20	19	19
20	21	20	20
21	22	21	21
22	23	22	22
23	24	23	23
24	25	24	24

Figure 1

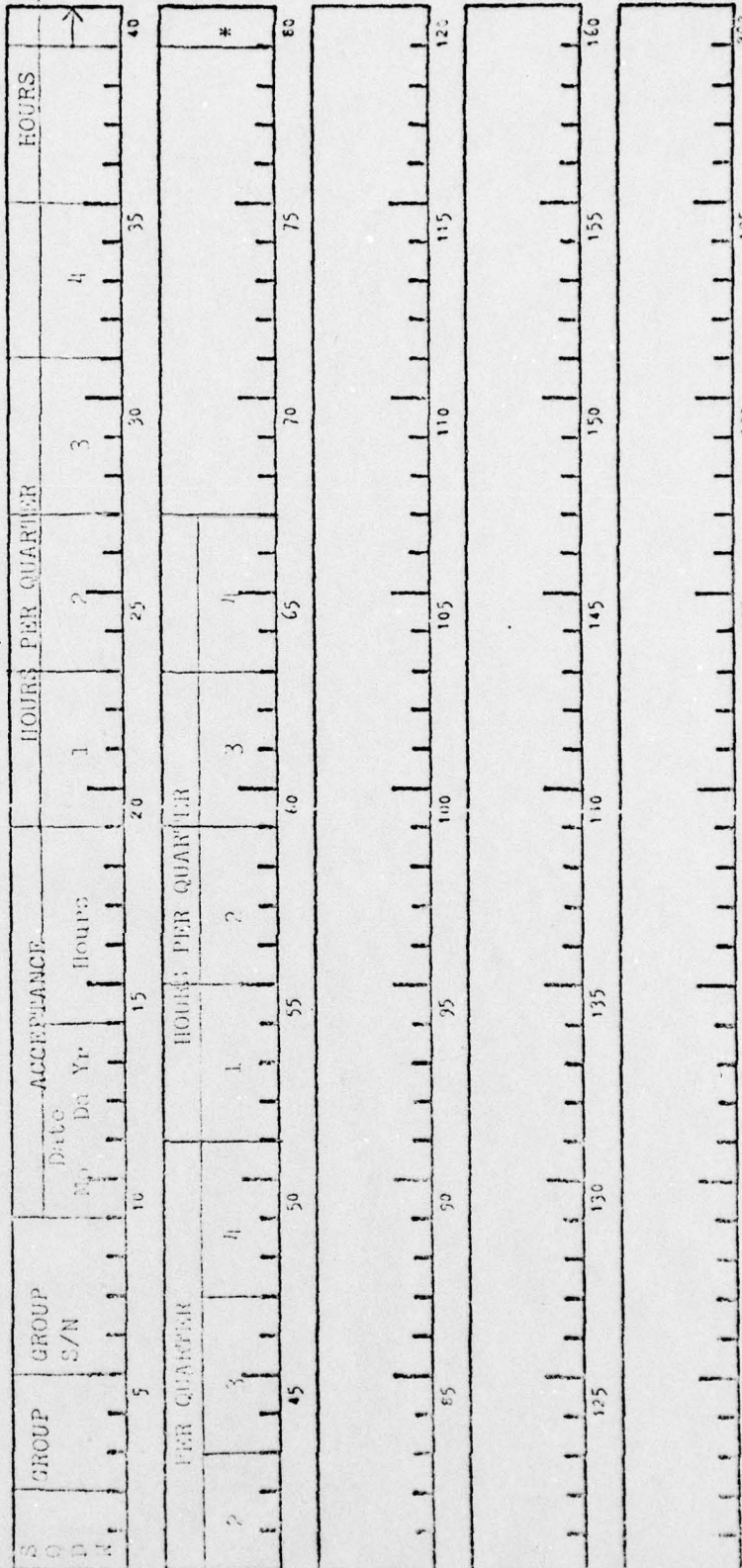
TAPE RECORD FORMAT

FILE NAME OPERS RECORD LENGTH 80 PAGE OF DATE

FILE NUMBER BLOCKING FACTOR 25

PARITY ☒ EVEN ☐ ODD ☒ YES ☐ NO ☒ STANDARD ☐ NON-STANDARD ☒ NONE
 GAP ☒ 3/4" ☐ TAPE MARK ☒ YES ☐ NO ☐ HEADER ☐ TRAILER ☐

REMARKS: * ENTER A IF 1966, 1967, 1968 ENTER C IF 1973, 1974
 B IF 1969, 1970, 1971 ENTER D IF 1975, 1976, 1977



PROGRAM LISTING TO MAKE CORRECTIONS
TO OPERATE-HOURS TAPES

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// JOB 1302-01 EDI TAPE MAKE CORRECTIONS
// OPTION LINK, NOCUMP, NOKREF, NOLISTX
// ASSIGN SYS004, X'130'
// EXEC FCBOBL

IDENTIFICATION DIVISION.

PROGRAM-10. EDI169.

REMARKS. UPDATE AVALC FILE USING CARDS WITH TAPE RECORD
NUMBERS IN COLUMNS 1-5, BEGINNING COLUMN NUMBERS IN
COLUMNS 6-7, ENDING COLUMN NUMBERS IN COLUMNS 8-9,
AND NEW DATA FOR THOSE COLUMNS IN COLUMNS 10-80.

ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT WORKFILE ASSIGN TO SYS001-DA-2314-S-SORTMK1.

SELECT CRD ASSIGN TO SYS004-UR-2540R-S.

SELECT REC3IN ASSIGN TO SYS011-UT-2400-S-AVINP.

SELECT REC3OUT ASSIGN TO SYS012-UT-2400-S-AVOUT.

DATA DIVISION.

FILE SECTION.

SD WORKFILE DATA RECORD IS SRTREC. LABEL RECORDS ARE STANDARD.

01 SRTREC.

02 CARDRECNO PIC S9(7), USAGE COMPUTATIONAL-3.

02 SRTBECOL PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTENDCOL PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTDATA.

03 SRTCHAR OCCURS 71 TIMES, INDEXED BY SRTINDX, PIC X(11).

FD CRD LABEL RECORDS ARE OMITTED, DATA RECORD IS CARD-IMAGE.

01 CARD-IMAGE.

02 FILLER PIC X(80).

FD REC3IN LABEL RECORDS ARE OMITTED, DATA RECORD IS INREC,

BLOCK CONTAINS 25 RECORDS.

01 INREC.

02 FILLER PIC X(80).

FD REC3OUT LABEL RECORDS ARE OMITTED, DATA RECORD IS OUTREC,

BLOCK CONTAINS 25 RECORDS.

01 OUTREC.

02 OUTCHAR OCCURS 80 TIMES, INDEXED BY OUTNDX, PIC X(11).

WORKING-STORAGE SECTION.

77 ENDTEMP PIC S999, USAGE COMPUTATIONAL, SYNC.

77 TAPERECNO PIC S9(7), USAGE COMPUTATIONAL-3, VALUE 0.

77 DIFF PIC S9(3), USAGE COMPUTATIONAL-3.

77 END-IND PIC X, VALUE '0'.

77 OPRECNO PIC S9(7), USAGE COMP-3, VALUE 0.

01 UPDATE-CARD.

02 12COLS.

03 NCHAR OCCURS 9 TIMES INDEXED BY UPDNDX, PIC X(11).

02 3FIELDS REDEFINES 12COLS.

03 UPD-REC PIC 9(5).

03 UPD-BEG PIC 9(2).

03 UPD-END PIC 9(2).

02 UPD-DATA.

03 UPD-CHAR PIC X(71).

PROCEDURE DIVISION.

OPEN INPUT REC3IN, CRD, OUTPUT REC3OUT.

SORT WORKFILE ASCENDING KEY CARDRECNO, INPUT PROCEDURE

READ-CARDS, OUTPUT PROCEDURE UPDATE-TAPE.

```

CLOSE REC3IN, REC3OUT.
STOP RUN.
READ-CARDS SECTION.
GET-CRD.
  READ CRD INTO UPDATE-CARD AT END GO TO LAST-CRD.
  PERFORM TEST-CHAR THRU TEST-XIT VARYING UPONDX FROM 1 BY 1
  UNTIL UPONDX GREATER THAN 9.
CHECK-FLDI.
  MOVE UPD-REC TO CARDRECNO.
  IF CARDRECNO = 0 GO TO ERR.
  MOVE UPD-REC TO SRTBECCOL.
  IF SRTBECCOL = 0 OR SRTBECCOL GREATER THAN 80 GO TO ERR.
  MOVE UPD-END TO SRTENDCOL.
  IF SRTENDCOL = 0 OR SRTENDCOL GREATER THAN 80 GO TO ERR.
  SUBTRACT SRTBECCOL FROM SRTENDCOL GIVING DIFF.
  IF DIFF LESS THAN 0 OR DIFF GREATER THAN 71 GO TO ERR.
  MOVE UPD-CHAR TO SRTDATA.
  RELEASE SRTREC.
  GO TO GET-CRD.
ERR.
  DISPLAY ' *** ERROR ', CARD-IMAGE.
  GO TO GET-CRD.
LAST-CRD.
  CLOSE CRD.
EXIT-READ.
  EXIT.
TEST-CHAR SECTION.
  IF NCHAR (UPONDX) = ' ' MOVE '0' TO NCHAR (UPONDX)
  GO TO TEST-XIT.
  IF NCHAR (UPONDX) LESS THAN '0' OR NCHAR (UPONDX) GREATER
  THAN '9' GO TO ERR.
TEST-XIT.
  EXIT.
UPDATE-TAPE SECTION.
  RETURN WORKFILE RECORD AT END STOP RUN.
GET-TAPE.
  READ REC3IN INTO OUTREC AT END GO TO LAST-REC.
  ADD 1 TO TAPARECNO.
COMP-RECNO.
  IF CARDRECNO LESS THAN TAPARECNO GO TO GET-SRTREC.
  IF CARDRECNO = TAPARECNO GO TO UPDATE-RECORD.
  IF UPD-BEG = '80' AND UPD-END = '80' AND UPD-CHAR = SPACES
  GO TO GET-TAPE.
WRITE OUTREC.
  ADD 1 TO UPRECNO.
  GO TO GET-TAPE.
UPDATE-RECORD.
  MOVE SRTENDCOL TO ENDTEMP.
  SET SRTINDX TO 1.
  PERFORM MOVECHAR THRU EXIT-MOVE VARYING OUTNDX FROM
  SRTBECCOL BY 1 UNTIL OUTNDX GREATER THAN ENDTEMP.
GET-SRTREC.
  RETURN WORKFILE RECORD AT END MOVE '1' TO END-IND, MOVE
  999999 TO CARDRECNO.
  GO TO COMP-RECNO.
LAST-REC.

```



```

DISPLAY SPACES.
DISPLAY TAPRECNO, ' RECORDS INPUT'.
DISPLAY OPRECNO, ' RECORDS OUTPUT'.
IF END-IND = '1' GO TO EXIT-UPD.
DISPLAY SPACES.

NXT-REC.
DISPLAY ' *** NO RECORD ', CARDRECNO.
RETURN WORKFILE RECORD AT END GO TO EXIT-UPD.
GO TO NXT-REC.

EXIT-UPD.
EXIT.

MOVECHAR SECTION.
MOVE SRTCHAR (SATNDX) TO OUTCHAR (OUTNDX).
SET SRTNDX UP BY 1.
EXIT-MOVE.
EXIT.

```

```

/*
ENTRY
// EXEC LINKEDT
// ASSN SYS001,X'130'
// OLBL SORTWK1,,0
// EXTENT SYS001,111111,1,0,3280,600
// EXEC
/*
/c

```

4. MACCS PART QUANTITY DATA

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PART-QUANTITY DATA

SECTION 1. INTRODUCTION

The purpose of this procedure is to add new part data to the part quantity tapes and to make corrections to the part quantity data already on magnetic tape. This procedure, consisting of three utility routines and one COBOL program, is performed on the IBM 370/135 Disk Operating System (DOS) computer.

New data (i.e., group number, part number, federal stock number, minimum stockage list quantity, quantity of parts within a group, SMR code, nomenclature of the part, description of the part, and the replacement factor for the part) are obtained from the applicable Marine Corps Stock Lists and transcribed onto the Part Quantity Encoding Form (Enclosure 1). From this form, IBM cards are keypunched to incorporate all of the aforementioned data.

Corrections to data already on magnetic tape are encoded onto the MACCS Changes Encoding Form (Enclosure 2) and keypunched on IBM cards.

SECTION 2. APPLICABLE DOCUMENTS

The following Marine Corps Stock Lists were utilized in creating the part-quantity tapes on the systems of the MACCS:

- | | |
|--------------|-----------------------|
| a. AN/TYQ-1 | SL-4-04428A |
| b. AN/TYQ-2 | SL-4-04019A |
| c. AN/TYQ-3 | SL-4-04429A |
| | SL-4-05776A |
| | SL-4-05777A |
| | SL-4-05778A |
| | SL-4-05780A |
| | SL-4-05783A |
| d. AN/TPS-32 | SL-4-04401A |
| | SL-4-84289B |
| | SL-4-84299B |
| | SL-4-84300B |
| | SL-4-84315B |
| | SL-4-84335B (Interim) |

SECTION 3. INPUTS

The inputs to add new data to the part quantity tapes are IBM cards and a magnetic tape. The inputs to correct data already on the part quantity tapes are IBM cards and a magnetic tape.

SECTION 4. BASIC OPERATIONS

To add new data to the part quantity tapes, the data on cards are put on magnetic tape by the utility routine CDTAPE. Then MRGPQ3 merges and sorts the new part data with the data on the old master part quantity tape by part number and group. This routine is followed by MRGPQ4, which merges and sorts the new part data with the data on another old master part quantity tape by federal stock number and group. Enclosures 3, 4, and 5 are the logic flow, operating procedure and program listings of this procedure.

To make corrections to the existing part quantity tapes, EDTAPE, a COBOL program, is used. Enclosures 6, 7, and 8 are the logic flow, operating procedure and program listing of this procedure.

SECTION 5. OUTPUTS

The output of these procedures is a magnetic tape containing part quantity information on each of the equipment groups of the systems of the MACCS. Part quantity data on each system (i.e., AN/TYQ-1, AN/TYQ-2, AN/-TYQ-3, and AN/TDS-32) is placed on separate magnetic tapes.

These tapes are used as the basic source of part data on each system. Any part numbers and federal stock numbers on the FMR data tapes are checked against these tapes.

PART QUANTITY DATA ENCODING FORM
WITH
INSTRUCTION SHEET

WORK ORDER NO. 1302-01

ARINC RESEARCH CORPORATION
MACCS PART QTY DATA Rev. 1 (8/23/72)

SHEET NO. _____ OF _____
DATE _____

GROUP		Part Number		Federal Stock Number		MSL QTY		QTY Within Group		SMR Code		Nomenclature		Description		Repl Factor			
1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

PART QUANTITY DATA ENCODING

FORM INSTRUCTION SHEET

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-2	Group	Enter last two digits of group code.
3-5		Not used
6-18	Part Number	Enter part number.
19-31	Federal Stock Number	Enter federal stock number.
32-35	MSL Quantity	Enter Minimum Stockage List quantity.
36-43	QTY Within Group	Enter quantity of parts within the group.
44-48	SMR Code	Enter SMR code (if applicable).
49-61	Nomenclature	Enter nomenclature of part.
62-75	Description	Enter description of part.
76-80	Replacement Factor	Enter replacement factor for part.

MACCS CHANGES ENCODING FORM
WITH INSTRUCTION SHEET

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WORK ORDER NO. 1302-01

SHEET NO. _____ OF _____
DATE _____

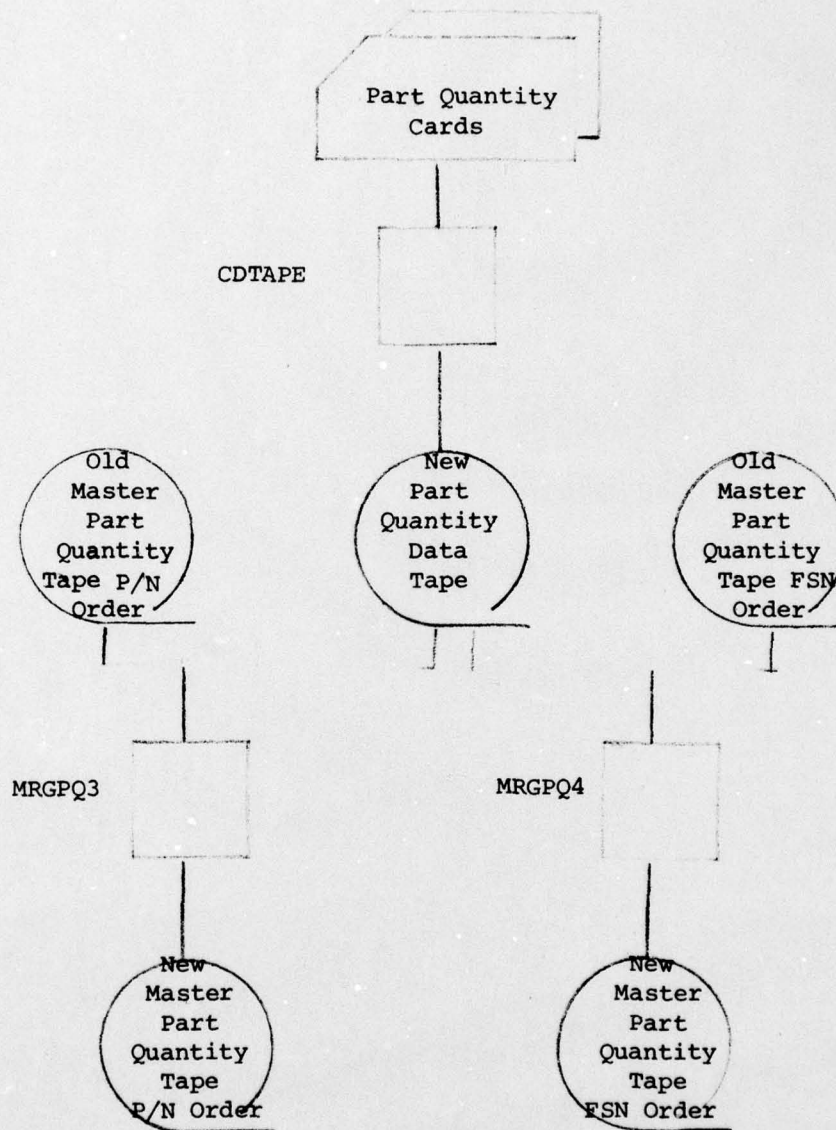
Record	No.	Begin	End
--------	-----	-------	-----

[illegible]

MACCS CHANGES ENCODING FORM

INSTRUCTION SHEET

<u>Column</u>	<u>Heading</u>	<u>Instructions</u>
1-5	Record Number	Enter record number from printout of part quantity tape.
6-7	Begin	Enter two-digit number of column where correction is to begin.
8-9	End	Enter two-digit number of column where correction is to end.
10-80	MACCS Changes	Enter correct data.



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LOGIC FLOW TO ADD NEW DATA TO MASTER
PART QUANTITY TAPES

AD-A074 129

ARINC RESEARCH CORP ANNAPOLIS MD

F/G 17/2

HANDBOOK OF PROCEDURES: RELIABILITY AND MAINTAINABILITY MONITOR--ETC(U)

DEC 74

M00027-74-C-0099

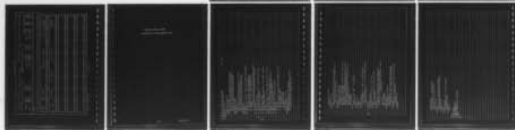
UNCLASSIFIED

1302-01-4-1362

NL

3 OF 3

AD
A074129



END

DATE
FILMED

10-79

DDC

PROCEDURE

TITLE: PQUPDT - PHASE 1

PURPOSE: To add new part numbers or federal stock numbers to master part quantity tapes

STEP 1

Program: CDTAPE

Language: Utility

Description: Puts new part-quantity cards on tape and blocks by 25

Input: MACCS Part Quantity Cards

Format: See Figure 1, p. 181.

Output: New Part Data Tape

Rec Length: 80

Block Length: 2000

Mode: CO

Label: No

Format: See Figure 2, p. 182.

STEP 2

Program: MRGPQ3

Language: Utility

Description: Sorts and merges new part numbers with master part quantity data tape (PN order)

Input:

(1) New Part Quantity Data Tape

Rec Length: 80

Block Length: 2000

Mode: CO

Label: No

Format: See Figure 2, p. 182.

Enclosure 4

(2) Old Part Quantity Master Data Tape

Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See Figure 2, p. 182.

Output: New Part Quantity Master Data Tape

Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See Figure 2, p. 182
Order: P/N, GRP

STEP 3

Program: MRGPQ4

Language: Utility

Description: Sorts and merges new FSN data with Master Part
Quantity Data Tape (FSN order)

Input:

(1) New Part Quantity Data Tape

Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See Figure 2, p. 182
Order: FSN, GRP

(2) Old Part Quantity Master Data Tape

Rec Length: 80
Block Length: 2000
Mode: CO
Label: No
Format: See Figure 2, p. 182.
Order: FSN, GRP

Output: New Part Quantity Master Data Tape

Rec Length: 80

Block Length: 2000

Mode: CO

Label: No

Format: See Figure 2, p. 182.

Order: FSN, GRP

WORK ORDER NO. 1302-01

ARINC RESEARCH CORPORATION
MACCS PART QTY DATA Rev. 1 (8/23/72)

SHEET NO. _____ OF _____
DATE _____

G R O U P	Part Number	Federal Stock Number	MSL QTY	QTY Within Group	SMR Code	Nomenclature	Description	Repl Factor
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21
22	22	22	22	22	22	22	22	22
23	23	23	23	23	23	23	23	23
24	24	24	24	24	24	24	24	24
25	25	25	25	25	25	25	25	25

Figure 1

FILE NAME POUPDT RECORD LENGTH 80 PAGE OF DATE

FILE NUMBER BLOCKING FACTOR 25

PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	STANDARD	<input type="checkbox"/>	NON-STANDARD	<input type="checkbox"/>	NONE	<input checked="" type="checkbox"/> Y
GAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/>	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	<input type="checkbox"/>				<input checked="" type="checkbox"/> X

FILE NAME POUPDT RECORD LENGTH 80 PAGE OF DATE

FILE NUMBER BLOCKING FACTOR 25

PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	STANDARD	<input type="checkbox"/>	NON-STANDARD	<input type="checkbox"/>	NONE	<input checked="" type="checkbox"/> Y
GAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/> <u> </u>	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	HEADER	<input type="checkbox"/>	TRAILER	<input type="checkbox"/>		<input checked="" type="checkbox"/> X

REMARKS:

GRP	PART NUMBER	FEDERAL STOCK NUMBER	MSL QUANTITY	QUANTITY WITHIN GROUP
5	10	20	30	40
5	15	25	35	45
5	20	30	40	50
5	25	35	45	55
5	30	40	50	60
5	35	45	55	65
5	40	50	60	70
5	45	55	65	75
5	50	60	70	80
5	55	65	75	85
5	60	70	80	90
5	65	75	85	95
5	70	80	90	100
5	75	85	95	105
5	80	90	100	110
5	85	95	105	115
5	90	100	110	120
5	95	105	115	125
5	100	110	120	130
5	105	115	125	135
5	110	120	130	140
5	115	125	135	145
5	120	130	140	150
5	125	135	145	155
5	130	140	150	160
5	135	145	155	165
5	140	150	160	170
5	145	155	165	175
5	150	160	170	180
5	155	165	175	185
5	160	170	180	190
5	165	175	185	195
5	170	180	190	200
5	175	185	195	205
5	180	190	200	210
5	185	195	205	215
5	190	200	210	220
5	195	205	215	225
5	200	210	220	230
5	205	215	225	235
5	210	220	230	240
5	215	225	235	245
5	220	230	240	250
5	225	235	245	255
5	230	240	250	260
5	235	245	255	265
5	240	250	260	270
5	245	255	265	275
5	250	260	270	280
5	255	265	275	285
5	260	270	280	290
5	265	275	285	295
5	270	280	290	300
5	275	285	295	305
5	280	290	300	310
5	285	295	305	315
5	290	300	310	320
5	295	305	315	325
5	300	310	320	330
5	305	315	325	335
5	310	320	330	340
5	315	325	335	345
5	320	330	340	350
5	325	335	345	355
5	330	340	350	360
5	335	345	355	365
5	340	350	360	370
5	345	355	365	375
5	350	360	370	380
5	355	365	375	385
5	360	370	380	390
5	365	375	385	395
5	370	380	390	400
5	375	385	395	405
5	380	390	400	410
5	385	395	405	415
5	390	400	410	420
5	395	405	415	425
5	400	410	420	430
5	405	415	425	435
5	410	420	430	440
5	415	425	435	

Figure 2

PROGRAM LISTINGS
TO
ADD NEW DATA TO
MASTER PART QUANTITY TAPES

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CRD 292

// JOB 1302-01 CDTAPE CARD-TAPE UTILITY (80/2000)

// ASSIGN SYS005,X'292'

// ASSIGN SYS004,X'00C'

// UPST 00100000

// EXEC CDT

// UCT TR,FE,A=(80,80),B=(80,2000),11,OR,R1

// END

//*

//6

CDTAPE
4-20

// JOB 1302-Q1 MRGPQ3 CREATE UPDATED P-Q TAPE, SORT BY P/N
// ASSGN SYS003,X'290'
// ASSGN SYS002,X'291'
// ASSGN SYS001,X'292'
// ASSGN SYS004,X'131'
// DLRL SORTNKL,0
// EXTENT SYS004,999999,1,0,100,2000
// EXEC SORT
SORT FIELDS=(6,13,A,1,2,A1,FORMAT=BI,FILES=2,WORK=1
RECORD TYPE=F,LENGTH=60
INPFIL BLKSIZE=2000
OUTFIL BLKSIZE=2000
OPTION LABEL=(U,U,U)
END
/*
/*

MRGPQ3
4-21

] // JOB 1302-01 MRGPQ4 CREATE UPDATED P-Q TAPE. SORT BY FSN

// ASSIGN SYS003,X'290'

// ASSIGN SYS002,X'291'

// ASSIGN SYS001,X'293'

// ASSIGN SYS004,X'131'

// DLBL SORTMK1,0

// EXTENT SYS004,999999,1,0,100,2000

// EXEC SORT

SORT FIELDS=(19,13,A,1,2,A),FORMAT=BI,FILES=2,WORK=1

RECORD TYPE=F,LENGTH=80

INPFIL BLKSIZE=2000

CUTFIL BLKSIZE=2000

OPTION LABEL=(U,U,U)

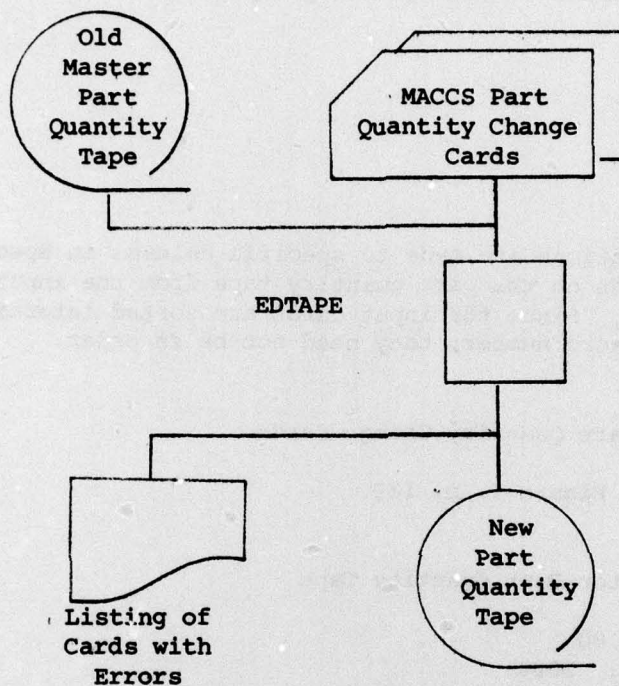
END

/*

/S

MRGPQ4

4-22



LOGIC FLOW TO MAKE CORRECTIONS
TO PART QUANTITY TAPES

PROCEDURE

TITLE: PQUPDT - Phase 2

PURPOSE: To make corrections to part quantity tapes

Step 1

Program: EDTAPE

Language: COBOL

Description: Corrections are made to specific columns in specific records on the part quantity tape from the input cards. Since the input cards are sorted internally by record number, they need not be in order.

Inputs:

- (1) MACCS Part Quantity Change Cards

Format: See Figure 1, p. 189.

- (2) Old Master Part Quantity Tape

Rec Length: 80

Block Length: 2000

Mode: CO

Label: No

Format: See Figure 2, p. 190.

Outputs:

- (1) New Master Part Quantity Tape

Rec Length: 80

Block Length: 2000

Mode: CO

Label: No

Format: See Figure 2, p. 190.

- (2) Listing of invalid cards for which corrections were not made

WORK ORDER NO. 1302-01

WORK ORDER NO. 1302-01

MACCS CHANGES

Record No.	Begin	End	MACCS CHANGES
1	1	1	
2	1	1	
3	1	1	
4	1	1	
5	1	1	
6	1	1	
7	1	1	
8	1	1	
9	1	1	
10	1	1	
11	1	1	
12	1	1	
13	1	1	
14	1	1	
15	1	1	
16	1	1	
17	1	1	
18	1	1	
19	1	1	
20	1	1	
21	1	1	
22	1	1	
23	1	1	
24	1	1	
25	1	1	

FILE NAME	EQUIPMENT	FILE NUMBER	BLOCKING FACTOR	RECORD LENGTH	PAGE	OF	DATE
			25	80			
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	HEADER	STANDARD <input type="checkbox"/> NON-STANDARD <input type="checkbox"/> MCNE <input checked="" type="checkbox"/>
CAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/>	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	STANDARD <input type="checkbox"/> NON-STANDARD <input type="checkbox"/> MCNE <input checked="" type="checkbox"/>

FILE NAME	EQUIPMENT	FILE NUMBER	BLOCKING FACTOR	RECORD LENGTH	PAGE	OF	DATE
			25	80			
PARITY	<input checked="" type="checkbox"/> EVEN	<input type="checkbox"/> ODD	PAD W/9's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	HEADER	STANDARD <input type="checkbox"/> NON-STANDARD <input type="checkbox"/> MCNE <input checked="" type="checkbox"/>
CAP	<input checked="" type="checkbox"/> 3/4"	<input type="checkbox"/>	TAPE MARK	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	TRAILER	STANDARD <input type="checkbox"/> NON-STANDARD <input type="checkbox"/> MCNE <input checked="" type="checkbox"/>

REMARKS:

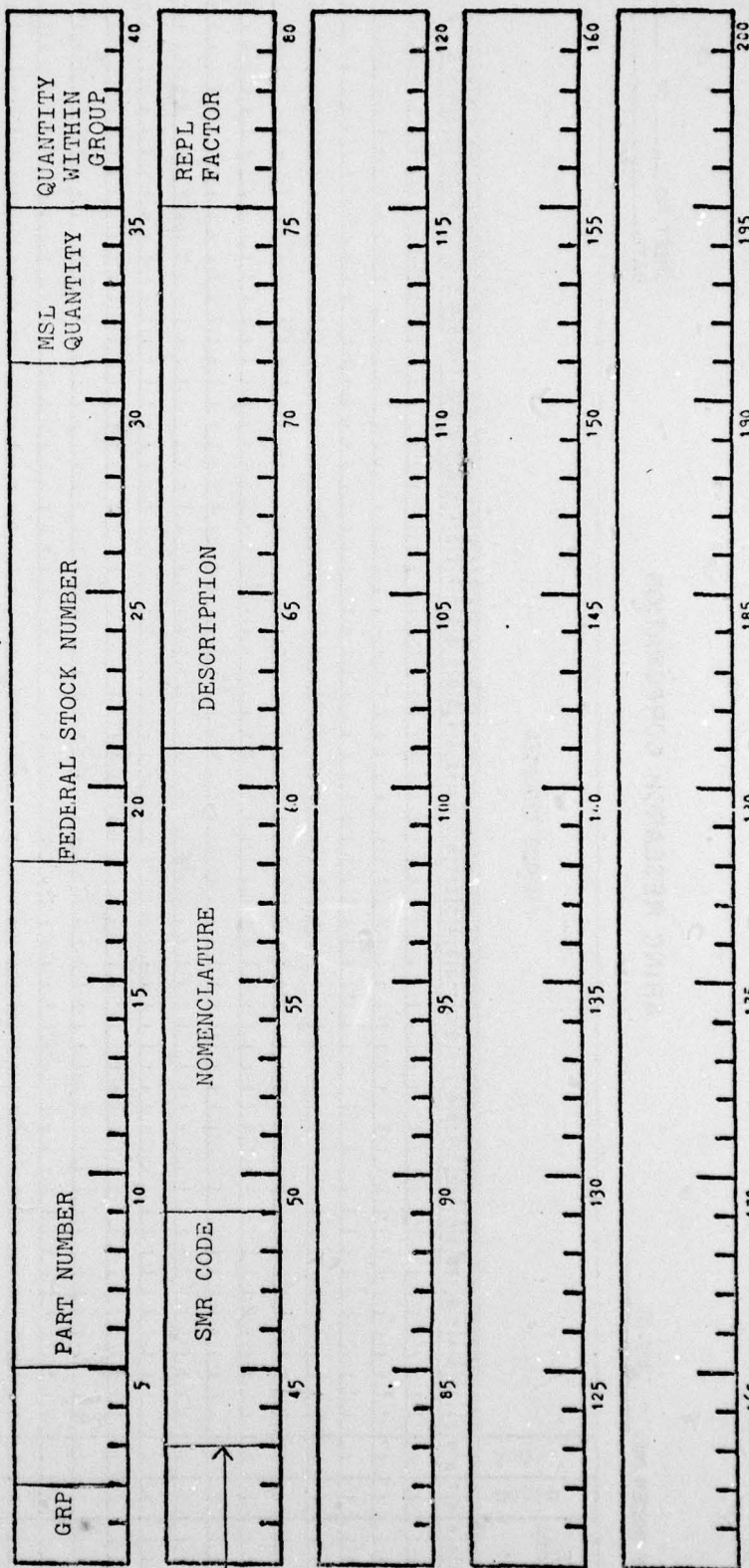


Figure 2

PROGRAM LISTING TO MAKE
CORRECTIONS TO PART QUANTITY TAPES

// JOB 1302-01 EDTAPE MAKE CORRECTIONS
 // OPTION LINK,NODUMP,NOKREF,NOLISTX
 // ASSIGN SYS004,X'130'
 // EXEC FCOROL

IDENTIFICATION DIVISION.

PROGRAM-ID. EDIT69.

REMARKS. UPDATE AVCAL FILE USING CARDS WITH TAPE RECORD
 NUMBERS IN COLUMNS 1-5, BEGINNING COLUMN NUMBERS IN
 COLUMNS 6-7, ENDING COLUMN NUMBERS IN COLUMNS 8-9,
 AND NEW DATA FOR THOSE COLUMNS IN COLUMNS 10-80.

ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT WORKFILE ASSIGN TO SYS001-DA-2314-S-SORTWK1.

SELECT CRD ASSIGN TO SYS004-UR-2540R-S.

SELECT REC3IN ASSIGN TO SYS011-UT-2400-S-AVINP.

SELECT REC3OUT ASSIGN TO SYS012-UT-2400-S-AVOUT.

DATA DIVISION.

FILE SECTION.

SD WORKFILE DATA RECORD IS SRTRC, LABEL RECORDS ARE STANDARD.

01 SRTRC.

02 CARDRECNO PIC S9(7), USAGE COMPUTATIONAL-3.

02 SRTRCNO PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTRCNO PIC S9(3), USAGE COMPUTATIONAL-3.

02 SRTRCNO.

03 SRTRCNO OCCURS 71 TIMES, INDEXED BY SRTRCNO, PIC X(11).

FD CRD LABEL RECORDS ARE OMITTED, DATA RECORD IS CARD-IMAGE.

01 CARD-IMAGE.

02 FILLER PIC X(80).

FD REC3IN LABEL RECORDS ARE OMITTED, DATA RECORD IS INREC,

BLOCK CONTAINS 25 RECORDS.

01 INREC.

02 FILLER PIC X(80).

FD REC3OUT LABEL RECORDS ARE OMITTED, DATA RECORD IS OUTREC,

BLOCK CONTAINS 25 RECORDS.

01 OUTREC.

02 OUTCHAR OCCURS 80 TIMES, INDEXED BY OUTNOX, PIC X(11).

WORKING-STORAGE SECTION.

77 ENDTEMP PIC S999, USAGE COMPUTATIONAL, SYNC.

77 TAPERECNO PIC S9(7), USAGE COMPUTATIONAL-3, VALUE 0.

77 DIFF PIC S9(3), USAGE COMPUTATIONAL-3.

77 END-IND PIC X, VALUE '0'.

77 OPRECNO PIC S9(7), USAGE COMP-3, VALUE 0.

01 UPDATE-CARD.

02 12COLS.

03 NCHAR OCCURS 9 TIMES INDEXED BY UPDNOX, PIC X(11).

02 3FIELDS REDEFINES 12COLS.

03 UPD-REC PIC 9(15).

03 UPD-BEG PIC 9(12).

03 UPD-END PIC 9(12).

02 UPD-DATA.

03 UPD-CHAR PIC X(71).

PROCEDURE DIVISION.

OPEN INPUT REC3IN, CRD, OUTPUT REC3OUT.

SORT WORKFILE ASCENDING KEY CARDRECNO, INPUT PROCEDURE

READ-CARDS, OUTPUT PROCEDURE UPDATE-TAPE.

EDTAPE

4-28


```

CLOSE REC3IN, REC3OUT.
STOP RUN.
READ-CARDS SECTION.
GET-CRD.
  READ CRD INTO UPDATE-CARD AT END GO TO LAST-CRD.
  PERFORM TEST-CHAR THRU TEST-XIT VARYING UPDNOX FROM 1 BY 1
  UNTIL UPDNOX GREATER THAN 9.
CHECK-FLDI.
  MOVE UPD-REC TO CARDRECNO.
  IF CARDRECNO = 0 GO TO ERR.
  MOVE UPD-REG TO SRTBEGCOL.
  IF SRTBEGCOL = 0 OR SRTBEGCOL GREATER THAN 80 GO TO ERR.
  MOVE UPD-END TO SRTEENDCOL.
  IF SRTEENDCOL = 0 OR SRTEENDCOL GREATER THAN 80 GO TO ERR.
  SUBTRACT SRTBEGCOL FROM SRTEENDCOL GIVING DIFF.
  IF DIFF LESS THAN 0 OR DIFF GREATER THAN 71 GO TO ERR.
  MOVE UPD-CHAR TO SRTDATA.
  RELEASE SRTRC.
  GO TO GET-CRD.
ERR.
  DISPLAY ' *** ERROR ', CARD-IMAGE.
  GO TO GET-CRD.
LAST-CRD.
  CLOSE CRD.
EXIT-READ.
  EXIT.
TEST-CHAR SECTION.
  IF NCHAR (UPDNOX) = ' ' MOVE '0' TO NCHAR (UPDNOX)
  GO TO TEST-XIT.
  IF NCHAR (UPDNOX) LESS THAN '0' OR NCHAR (UPDNOX) GREATER
  THAN '9' GO TO ERR.
TEST-XIT.
  EXIT.
UPDATE-TAPE SECTION.
  RETURN WORKFILE RECORD AT END STOP RUN.
GET-TAPE.
  READ REC3IN INTO OUTREC AT END GO TO LAST-REC.
  ADD 1 TO TAPARECNO.
COMP-RECNO.
  IF CARDRECNO LESS THAN TAPARECNO GO TO GET-SRTRC.
  IF CARDRECNO = TAPARECNO GO TO UPDATE-RECORD.
  IF UPD-BEG = '80' AND UPD-END = '80' AND UPD-CHAR = SPACES
  GO TO GET-TAPE.
WRITE OUTREC.
  ADD 1 TO UPRECNO.
  GO TO GET-TAPE.
UPDATE-RECORD.
  MOVE SRTEENDCOL TO ENOTEMP.
  SET SRINDX TO 1.
  PERFORM MOVECHAR THRU EXIT-MOVE VARYING OUTNOX FROM
  SRTBEGCOL BY 1 UNTIL OUTNOX GREATER THAN ENOTEMP.
GET-SRTRC.
  RETURN WORKFILE RECORD AT END MOVE '1' TO END-IND, MOVE
  999999 TO CARDRECNO.
  GO TO COMP-RECNO.
LAST-REC.

```

```

]
DISPLAY SPACES.
DISPLAY TAPRECNO, * RECORDS INPUT*.
DISPLAY OPRCNO, * RECORDS OUTPUT*.
IF END-IND = '1' GO TO EXIT-UPD.
DISPLAY SPACES.
NXT-REC.
DISPLAY * *** NO RECORD *, CARDRECNO.
RETURN WORKFILE RECORD AT END GO TO EXIT-UPD.
GO TO NXT-REC.
EXIT-UPD.
EXIT.
MOVECHAR SECTION.
MOVE SRTCHAR (SRTNDX) TO OUTCHAR (OUTNDX).
SET SRTNDX UP BY 1.
EXIT-MOVE.
EXIT.
/*
ENTRY
// EXEC LINKEDT
// ASSIGN SYS001,X'130'
// DLBL SORTWK1,,0
// EXTENT SYS001,11111,1,0,3280,600
// EXEC
/*
/*

```